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## EDITORIAL COMMENT.

"Newspapers are an essential part of our war organisation."—  
(Sir Auckland Geddes, Minister of National Service.)

**B**Y an announcement in the *London Gazette* it is notified that His Majesty the King has been pleased, on the occasion of his birthday, to institute two decorations to be awarded to officers and warrant officers in the Royal Air Force, and two medals to be awarded to non-commissioned officers and men belonging to the Force. They are:—

"THE DISTINGUISHED FLYING CROSS," to be awarded to officers and warrant officers for acts of gallantry when flying in active operations against the enemy.

**Decorations for the R.A.F.** "THE AIR FORCE CROSS," to be awarded to officers and warrant officers for acts of courage or devotion to duty when flying, although not in active operations against the enemy.

"THE DISTINGUISHED FLYING MEDAL," to be awarded to non-commissioned officers and men for acts of gallantry when flying in active operations against the enemy.

"THE AIR FORCE MEDAL," to be awarded to non-commissioned officers and men for acts of courage or devotion to duty when flying, although not in active operations against the enemy.

The announcement will be welcomed by the whole

of the *personnel* of the Royal Air Force, which has been placed on an equality with the Navy and Army in the matter of the decorations available for distinguished service. In fact, it is better off than either of the older Services since the precedent has been created of instituting two classes of decorations—two for distinguished service in face of the enemy and two for good service performed outside the actual area of hostilities. As in addition to the new decorations, officers and men of the Royal Air Force are eligible, in the case of the commissioned ranks for the award of the V.C. and the D.S.O., and in that of non-commissioned officers and men for that of the V.C., the Force is well off in the number of possible decorations to be gained.

As soon as the Royal Air Force was constituted as a separate Service it became practically certain that these new decorations should be instituted, since it was clear—as indeed, we pointed out some weeks ago—that decorations peculiar to the other Services could not be gained by officers and men of the Air Service, and we cannot but congratulate the powers that be for the prompt recommendation to His Majesty that the anomaly—for anomaly it was while it existed—should be removed. The precedent to which we have referred of having separate distinctions for combatant and non-combatant services is an admirable one and will, in the case of the R.A.F., remove not a little occasion for heart-burning and jealousy. It is one that might with advantage be followed in the cases of the older Services.

### The Birthday "Honours."

After the bitter comments which fell from the whole Press of the country on the occasion of the New Year issue of an "honours" list, we had thought that the Prime Minister would have suspended at least for the duration of the war the system under which titles and decorations descend in a perfect deluge on the heads of all sorts of people who have, or are supposed to have, rendered Heaven knows what particular "services" to the State. It seems, however, that we were entirely mistaken in harbouring any such views, since column upon column in last Monday's newspapers was filled with the names of people, some well known to the public, but the majority of whom one has never heard of before, who all appear to possess merit in such outstanding degree that it can only be recognised by the gift of titles and pretty crosses

which will doubtless bring joy to the hearts of their womenkind if it does no one else any good.

As to the lists of naval and military rewards and promotions, we have no word to say except that these are honours which have been well earned and justly awarded, but it is when we come to the lists of civilians who have been picked out for distinction we confess we are inclined to quote the classic, if hackneyed, example of Nero fiddling while Rome burned. It may be perfectly true that some of these honours are well-deserved. For example, we imagine that no one will find fault with the elevation of Lord Rhondda to a viscountcy. Doubtless he has been criticised more than almost any other Government official, but there is no getting away from the fact that he has done wonders in straightening out the terrible tangle in which the food supplies of the country had become involved under his predecessor. Had the list stopped short at names like his, we should not have been at all inclined to find fault, but when we follow it down and find that it is just like its fore-runners—that it contains the names of the usual rag-tag and bobtail—we begin to despair, especially when we come to the announcement that this is not the end and that more lists are to follow. There is just one consolation to be got out of these inordinate lists, and that is if the system continues for much longer it will break down automatically, because there will no longer be anyone left without a title or decoration of some sort.

#### The Corpus Christi "Truce."

We are quite unable to admit that the explanation of the Corpus Christi "truce" given by Lord Robert Cecil to his constituents explains away the abject futility of the British attitude towards the request of the Vatican. It fixes the responsibility for the agreement on the War Cabinet, but it is not likely to alter the opinion of any thinking person by an iota, and that opinion, as the War Cabinet must have realised by now, is that the ready consent to meet the wishes of the Pope was a piece of weakness deserving of the severest censure. To begin with, it has not emerged that the Huns were requested, at the same time, to refrain from bombarding Paris or to agree to a "truce of God" in their war against hospitals. Had His Holiness put forward such a request and had the German Government assented—and kept its pledge for once—it might be possible to agree that the Cabinet had acted properly, if not wisely, in agreeing to leave the Rhine cities alone for the day. But as no such request seems to have been made, and certainly no pledge was given by the enemy, the nasty feeling is left that we have been "spoofed" again. Not only was there no counter pledge, but actually the Hun seems to have laid himself out to treat us to an extra dose of frightfulness. The story of Good Friday in Paris was written over again in characters of the blood of women and children. As on the previous religious festival day, a church full of worshippers was struck by a shell from one of the German long-range guns and a number of people killed and wounded. Aerial frightfulness was persisted in against French hospitals in which lay helpless wounded—and the Hun laughed to think how cleverly he had secured immunity for his own people by taking advantage of our weakness. Why is it that, after nearly four years of war, during which the Hun has broken every convention, ignored every pledge, and outraged every civilised convention

not once but a thousand times, the British Government persists in treating him as though he were a chivalrous enemy instead of one undeserving of the slightest consideration. It is not only that he is a dirty dog, and should be treated as one, but the weak accession to the Pope's request undoubtedly gave the enemy a chance, of which we may be very sure he availed himself to the utmost, to rush troops and supplies across the Rhine bridges in the full certainty that they ran no risk from attack by Allied aircraft. Lord Robert Cecil's ingenuous explanation that we did not bomb German towns every day, and that we were therefore right to undertake not to do so on a particular day, will not do at all. Even admitting that we *were* right not to do so, we were certainly wrong in giving the undertaking. If we had contented ourselves with the private determination not to bomb Cologne that day and had said nothing about it, we should have left the Huns guessing and therefore not eased the strain on the *morale* of the Rhineland inhabitants, and have given away no military advantage. The one thing in Lord Robert's speech that will pass is his confession that the German disregard of the offer of a truce would make him look differently on future requests of the same kind. But why, we ask, was it necessary to wait for still another demonstration of Hun brutality to lead the Cabinet to regard future requests of the kind with disfavour? Surely we know all we want to know about German methods of making war—enough, at any rate, to have justified our saying to the Vatican: "We are sorry to have to refuse, but the Huns want ruthless war, with no truce until one side or the other throws up the sponge. As they insist upon that, they must have it. Whether we bomb Cologne on any particular day or not is a matter that we alone shall decide."

From one point of view the "truce" was not altogether bad. Such a volume of deep indignation against the weakness of the Cabinet has arisen that it is fairly certain the incident will not be repeated. Of course, we do not want to kill civilians—especially women and children—but this form of war has been forced upon us, and we can give no pledge not to pursue it so long as the belligerents cannot see their way to come to an agreement for it to cease altogether. And such an agreement is scarcely likely to be reached now when, from enjoying a monopoly of it, the Hun has begun to realise what it feels like to be the victim.

As though we had not sufficiently demonstrated our want of strength in this, almost simultaneously with the Corpus Christi lapse comes the disclosure of what one of our evening contemporaries rightly calls a truly amazing document—no less than a "petition" from the Order of St. John of Jerusalem to the Prussia Order of St. John to assist in maintaining the "highest standard of Christian generosity, charity, mercy and honour" in the conduct of the war. The manner in which this egregious petition is worded is enough to make one's gorge rise. "Certain belligerent acts," says this abject document, "appear to us to be opposed to the declarations, maxims and professions of our ancient and illustrious Order of Christian Chivalry." Then the subscribers proceed to bleat—we can find no other word for it—that the "Imperial (German) Government has not always acted up to the ideals and laws of our Christian brotherhood," and a lot more of such insufferable bunkum. That there should exist in this war year of 1918 an organised body of British men and women that can bring itself to think that such an appeal



as this, to a nation of thieves, murderers and ravishers, as the Huns have gloried in manifesting themselves, could have any other effect than that of making sport for those to whom it is addressed and giving further point to the German jest that we shall "always be fools," entirely passes comprehension. Really, we are at a loss to understand it. No worse piece of utter futility could be imagined than to address such an appeal to the Boche.

### "Siege by Air."

The *Daily Mail* has from the very earliest days of the aerial movement regarded the future and development of aircraft with a wider vision than most of its contemporary journals. Long before the war it took the lead among the great newspapers in urging the importance of the rôle to be played by aircraft in the wars of the future. Therefore, it has every justification now in adopting the attitude of: "We told you so!" In a recent leading article under the heading quoted above, the *Mail* dwells on what it describes as the coming siege of Germany by air. As it very truly remarks, the world stands on the threshold of tremendous events, and the immense power of aircraft which hitherto was visible only to the eye of faith, is now to be demonstrated in the field. We are about to witness one of those transformations which come only once in centuries when a new order of weapon conclusively proves its power. Expressed differently, this is exactly what we ourselves said a few weeks ago when discussing the revolution in warlike method, which aircraft are certain to effect in the very near future and which we repeated only last week in speaking of the delay caused to the enemy's offensive by Allied operations in the air.

When, over two years ago, the *Daily Mail*—and, incidentally, this journal—urged that if it was impossible to go *through* the enemy's front there was

a way *over* if we would bend our energies to the provision of an overwhelming number of aeroplanes, the people who were supposed to know said it could not be done in *this* war. Not only can it be done, but we are, we are fully convinced, at the beginning of a real siege of Germany by air—a siege which will, as we hope and believe, prove to be the last decisive factor in the war.

This much may be said without any fear of giving useful information to the enemy—and he is very welcome to as much as we are going to say—that the Allied preparations, which have been made with a high degree of skill and foresight will astonish not only the enemy but even the Allied peoples when the time comes to open the great siege in real earnest. Not only is our own programme well under way—so well that we are able to definitely claim aerial superiority over the enemy—but at last, after admitted failures and disappointments, the American programme is beginning to make itself felt. It has been allowed to transpire that during the past month no fewer than 1,300 American aeroplanes were sent to France and that is only the beginning. Such a number of machines is in itself a splendid reinforcement, but it has a deep significance far outweighing the material aid it represents. What it means is that all the difficulties have been successfully surmounted and production in quantity has been achieved at last. By way of emphasis, the latest news is that one firm alone will shortly be turning out 100 complete aero engines a day. What that in its turn means we doubt not the Germans will realise as well, if not better, than ourselves. Indeed, there is good reason for the belief that they already realise the significance of the war in the air and are striving to force a decision of the war favourable to the German arms before the Allied air power puts its attainment out of the question.

### Air Raids on Paris.

AN official report issued on May 28th stated:—

"Yesterday evening about ten enemy aeroplanes flying in the direction of Paris were signalled by our observation posts. The warning was given at 10.34. Barrage fire was opened by the anti-aircraft batteries. A number of bombs were dropped in the outlying districts, but no machine succeeded in reaching Paris itself. The 'All clear' was given at 11.45."

The following was issued on May 30th:—

"Yesterday evening the enemy displayed great aerial activity, and dropped bombs in various places behind the front. Some aeroplanes were reported to be making for Paris. The warning was given at 11.24, and our means of defence were put into action. No enemy machine passed the violent artillery barrage or flew over Paris. Some bombs were dropped in the outskirts.

"An enemy aeroplane was hit by our anti-aircraft batteries and fell in flames. The 'All-clear' was given at 12.34."

The following was issued on May 31st:

"Some hostile aeroplanes crossed the lines yesterday evening and flew towards Paris. Signalled by our observation posts, they were at once shelled by our defence batteries. The warning was given at 10.59, and the 'All clear' at midnight. Some bombs were dropped in the Paris region, but no victims have been reported. Thus once more can be seen Germany's contempt of the most sacred engagements for the least that could be expected was that the German Government should observe, with regard to Paris, on the occasion of Corpus Christi, the same reserve as had been solicited on behalf of Cologne."

The following was issued on June 1st:—

"Enemy aeroplanes having crossed the lines making for Paris, an alarm was sounded last night at 10.53, and the anti-aircraft defences opened fire. No bombs were dropped on Greater Paris. The 'All clear' was given at 11.47. Fresh sounds of motors having been reported by our observation posts, a second alarm was given at 11.56. The second 'all clear' was given at 12.38. A certain number of bombs are reported to have been dropped on the Paris district."

### PAPER-RATIONING.

**WARNING TO READERS.**—As has been foreshadowed for some time, greater official restrictions upon the sale of papers have become necessary, and after June 24th newspapers will not be permitted to be distributed under the scheme known as "Sale or Return." This means that those readers who wish to receive "FLIGHT" regularly, must place a definite order with their bookstall or newsagent for a copy to be reserved, or, as the only alternative, send an order to the Publishing Office, 36, Great Queen Street, Kingsway, W.C. 2, for "FLIGHT" to be sent each week by post. The direct subscription, by P.O.O. or Cheque, is as follows:—

	3 months.	6 months.	12 months.
	s. d.	s. d.	s. d.
United Kingdom .. .. .	7 1	14 1	28 2
Abroad .. .. .	8 3	16 6	33 0

The above is imperative as from June 24th if you wish to get "FLIGHT" each week.

## HONOURS.

### Birthday Honours for the R.A.F.

It was announced in a supplement to the *London Gazette* on June 3rd that the King has been pleased, on the occasion of His Majesty's birthday, to give orders for the following appointments to the Most Honourable Order of the Bath for services rendered in connection with the War:—

#### K.C.B. (Civil Division).

Sir Howard George Frank, Director-General of Lands, War Office, Ministry of Munitions and Air Ministry.

#### C.B. (Civil Division).

Henry W. W. McAnally, Esq., Assistant Secretary, Air Ministry.

In recognition of distinguished services rendered during the war:—

#### C.B. (Military Division).

Colonel (temporary Brig.-General) Arthur Vyell Vyvyan, D.S.O., R.A.F.

The King has been pleased, on the occasion of His Majesty's Birthday, to give directions for the following appointments to the Most Distinguished Order of Saint Michael and Saint George, in recognition of distinguished services rendered in connection with the war:—

#### C.M.G.

Lieutenant-Colonel (temporary Brig.-General) William Ward Warner, R.A.F.

Lieutenant Colonel (temporary Brig.-General) Bertie Clephane Hawley Drew, R.A.F.

Lieutenant-Colonel John Cyril Porte, R.A.F.

Lieutenant-Colonel (temporary Brig.-General) Cuthbert Gurney Hoare, R.A.F.

Lieutenant-Colonel (temporary Brig.-General) Alfred Huggins, D.S.O., R.A.F.

Major (temporary Lieutenant-Colonel) Ralph Kirby Bagnall-Wild, R.A.F.

Major (temporary Lieutenant-Colonel) Charles Frederick Lee, R.A.F.

In recognition of distinguished service in a theatre of war:—

#### C.M.G.

Lieutenant-Colonel (temporary Brig.-General) John Harold Whitworth Becke, D.S.O., R.A.F.

#### PROMOTIONS.

##### To be Brevet Colonel.

Major and Bt. Lieut.-Col. (temp. Brig.-Gen.) H. R. M. Brooke-Popham, D.S.O., Oxford and Bucks L.I. and R.A.F.

Major and Bt. Lieut.-Col. (temp. Brig.-Gen.) F. L. Festing, C.M.G., North'd Fus. and R.A.F.

##### To be Brevet Major.

Capt. (Temp. Colonel) G. B. Hynes, D.S.O., R.A., and R.A.F.

It was announced in a *London Gazette* supplement on June 3rd that the King has been pleased, on the occasion of His Majesty's birthday, to confer the following rewards for distinguished service:—

### Royal Air Force.

#### Distinguished Service Order.

Major (temp. Lieut.-Col.) John Eustace Arthur Baldwin.

Major (temp. Lieut.-Col.) Arthur Courtney Boddam-Whetham.

Capt. (temp. Major) Benjamin Henry Noel Hans Hamilton.

Major Alwyn Vesey Holt.

Capt. (temp. Major) Warwick Wright.

#### Distinguished Flying Cross.

Lieut. (Hon. Capt.) William Hopton Anderson (Aus. F.C.).

Lieut. David. Claud Bauer.

Lieut. (Hon. Capt.) Claver Victor Bessett.

Lieut. (temp. Capt.) Robert Alexander Birkbeck.

Lieut. John Geoffrey Sadler Candy.

Lieut. (temp. Capt.) Bernard Purvis Broackes Carter.

Lieut. Douglas Colyer.

Capt. Robert John Orton Compston, D.S.C.

Lieut. Maurice Lea Cooper.

Major Jack Armand Cunningham.

Capt. Roydon Englefield Ashford Dash.

Lieut. (temp. Capt.) John Charles Oswald Dickson.

Lieut. Thomas Howell French.

Lieut. George Cecil Gardner.

Lieut. (Hon. Capt.) Harold Harrison Gonyou.

Lieut. John Edmund Greene.

Lieut. (temp. Capt.) Frederick George Darby Hards, D.S.C.

Lieut. Francis Herbert Ronald Henwood.

Lieut. Gordon Frank Hyams.

Capt. Allen Murray Jones, M.C. (Aus. F.C.).

Lieut. (temp. Capt.) Ernest James Jones (Aus. F.C.).

Lieut. (temp. Capt.) Harold Aidan Laycock.

Lieut. George Chisholme Mackay.

Lieut. (temp. Capt.) William Man.

Lieut. (temp. Capt.) John Stanley Fleming Morrison.

Lieut. Philip John Nolan.

Lieut. (Hon. Capt.) Thomas Cooper Pattinson.

Lieut. (Hon. Capt.) Arthur Henry Pearce.

Lieut. (temp. Capt.) Edward Robert Pennell.

Lieut. (Hon. Capt.) Samuel Richard Penrose-Welsted.

Lieut. (Hon. Capt.) Cecil Lodge Philcox.

Lieut. (Hon. Capt.) John William Pinder.

Capt. John Robinson.

Lieut. Charles Basil Slater Spackman.

Capt. (temp. Major) David Edmund Stodart.

Lieut. Denys Lane Paschel Stuart Stuart-Shepherd.

Lieut. Leonard Thomas Eaton Taplin (Aus. F.C.).

Capt. (temp. Major) Awdry Morris Vaucour, M.C.

Lieut. (Hon. Capt.) Stephen Wynne Vickers, M.C.

Lieut. (temp. Capt.) William Young Walls.

Lieut. (temp. Capt.) Bert Sterling Wemp.

Lieut. Laurence Arthur Wingfield.

Lieut. Basil Raymond Worthington.

Lieut. (temp. Capt.) George Frederick William Zimmer.

#### Air Force Cross.

Lieut. (temp. Capt.) Valentine Henry Baker, M.C.

Capt. (temp. Lieut.-Col.) Robert Benedict Bourdillon, M.C.

Major-Gen. William Sefton Brancker.

Maj. (temp. Col.) Charles Dempster Breese.

Lieut. (temp. Capt.) Henry Duncan Davis.

Lieut. Robert William Dobbie.

Lieut. Llewellyn Lewis Meredith Evans.

Major (temp. Col.) The Hon. William Francis Forbes-

Sempill, Master of Sempill.

Capt. Percy Edward Lovell Gethin.

Lieut.-Col. (temp. Brig.-Gen.) Robert Marsland Groves.

D.S.O.

Lieut. Thomas Hayes.

Lieut. (temp. Capt.) Albert Goodeff Henshaw.

Capt. (temp. Major) Bennett Melville Jones.

Lieut. Walter Hunt Longton.

Lieut. Archibald Charles Lutyens, M.C.

Lieut. Laurence Newton Mitchell.

Lieut. John Oliver.

Capt. (temp. Major) Humphrey Rivaz Raikes.

Major (temp. Lieut.-Col.) Robert Raymond Smith-Barry.

Lieut. Charles Gordon Sturt.

Lieut. Terence Bernard Tully.

#### Distinguished Flying Medal.

F/9689 Acting Air-Mech. W./T. Albert Edward Clark (Woodford).

113763 Sergt. John Charles Hagan (Ulverston).

#### Air Force Medal.

11680 Sergt. Samuel James Mitchell (Handsworth, Birmingham).

106100 Sergt. Frederick Charles Tucker (Birtley, Durham).

#### Meritorious Service Medal.

2875 Flight Sergt. J. C. Alexander (Billericay, Essex);

5195 Flight Sergt. F. T. Angell (Crowthorne, Berks.);

15252 Corpl. (acting sergt.) A. W. Ashbee (Keynsham, Bristol);

5705 Corpl. R. E. Ashbolt (Ilford); 246 Temp. Sergt.-Major

C. W. Baker, (Pewsey, Wilts); 36427 Corpl. W. N. Baldwin

(Grimsargh, Lancs); 33948 Flight Sergt. D. Barnett (Birken-

head); 3481 Sergt. (temp. sergt.-major) J. W. Benson (Leeds);

16008 Temp. Sergt.-Major J. F. Bentley (Bow, London);

8886 Temp. Sergt.-Major J. F. Biggs (Isleworth); 232 Temp.

Sergt.-Major B. Billing (Bury St. Edmunds); 22996 Flight

Sergt. S. F. Bonnett (Bedford); 3908 Sergt. G. H. Bowater

(West Bromwich); 10730 Corpl. R. W. Broom (Cromer);

15615 Corpl. H. T. Brown (Fulham); 10149 Flight Sergt.

R. C. Bruce (Bristol); 43511 1st A.M. G. E. Bryant (West

Ealing); 17536 1st A.M. H. Burman (Walthamstow);

24086 Temp. Sergt.-Major B. C. Burnett (Enfield); 629 Temp.

Sergt.-Major H. Carrington (Norwich); 90 Temp. Sergt.-

Major C. S. Carden (Enfield); 4741 Flight Sergt. F. W. C.

Catchpole (Maidstone); 29063 Temp. Sergt.-Major P. J. C.

Clarke (Wallasey); 11712 Flight Sergt. J. E. Clifton (Bir-

mingham); 11955 Sergt. H. Collins (Eastbourne); 36034

Temp. Sergt.-Major C. H. Cooper (Hammersmith); 1953

Temp. Sergt.-Major E. H. Cooper (Shoreham); 188 Sergt.

(temp. Sergt.-Major) E. E. Copper (Beckenham, Kent);

2302 Temp. Sergt.-Major A. R. Cox (Gosport); 12651 Corpl.

H. W. Crawford (Redcar); 4316 Flight Sergt. A. Creighton

(Lancaster); 30054 Corpl. A. W. T. Davey (Highgate);

11254 Flight Sergt. R. Dickenson (Salford); 1745 Temp. Sergt.-

Major W. Eccles (Stockport); 8457 Flight Sergt. W. H.



Finch, (Waltham Cross); 4248 Flight Sergt. C. F. Ford (Chichester); 10232 Flight Sergt. F. G. Ford (Brixton); 2673 Sergt. (acting Flight-Sergt.) A. Gibson (Maidstone); 22645 1st A.M. A. R. Gilbert (Kilburn); 8398 Temp. Sergt.-Major G. Gillman (Farnham); 49095 Corpl. T. J. G. Grout (East Dulwich); 11442 Corpl. R. A. R. Hill (King's Cross); F/405 P.O. Mech. J. W. Hodgson (York); 45311 Temp. Sergt.-Major J. J. Hollyhead, M.M. (Malvern); 6360 Sergt. A. H. M. Hoy (Winsley, Wilts); 23280 Flight-Sergt. S. E. Hughes (Tufnell Park, N.); 19479 Sergt. O. G. Hunter (Hendon); 20236 Temp. Sergt.-Major C. W. James (Plumstead); 320 Sergt.-Major H. James, M.M. (Eltham, Kent); 321 Temp. Sergt.-Major A. Jarman (Plumstead); 12565 Corpl. M. D. Jones (Godrergraig, Glam.); 24846 Sergt. J. Kerr (Paisley); 18609 Flight Sergt. F. W. Kirby (Worthing, Suffolk).

7914 Flight Sergt. W. A. Legg (Cullen, Banffshire); 404020 Corpl. J. C. McMichael (Gatehouse, N.B.); 30513 Sergt. C. L. Marks (Lewisham); 16211 Flight Sergt. F. B. Matthews (Portsmouth); 167 Flight Sergt. (temp. Sergt.-Major) A. R. May (Plumstead); 1464 Temp. Sergt.-Major S. H. May (Folkestone); 1607 Flight Sergt. R. H. Millman (Lower Edmonton); 26692 Flight Sergt. A. S. Norman (Cove, Hants); 14088 1st A.M. J. Needham (Alderley Edge, Cheshire); 1518 Temp. Sergt.-Major E. S. Olney (Willesden, N.W.); 18629 Temp. Sergt.-Major A. W. Osborne (Westcliff); 942 Sergt. (temp. Sergt.-Major) C. J. O'Toole (Dublin); 25960 1st A.M. S. Owen (Armedale, Midlothian); 4960 Temp. Sergt.-Major J. J. Pathe (Carrigalong, Biss, Co. Tipperary); 10700 1st A.M. R. Peacock (Morecambe); 6468 Flight Sergt. L. Pellatt (Whitehaven, Cumberland); 37965 Corpl. J. Phillips (Leeds); 3642 Corpl. L. Poole (Leeds); 10515 Sergt. W. H. Roberts (Merthyr); 28924 Sergt. J. C. Robertson (West Hampstead); 943 Temp. Sergt.-Maj. J. Robinson (Gillingham); 25765 Corpl. P. Roche (Rochdale); 18319 Flight Sergt. S. C. Rogers (Highgate); 15098 1st A.M. J. Rundle (Par, Cornwall); 14047 Flight Sergt. W. J. Ryman (Hersham, Surrey); 30214 Flight Sergt. S. J. Scott (Wandsworth); 29690 Flight Sergt. W. Scott (Dysart); 59337 2nd A.M. G. Shaylor (Hornsey); 32399 Flight Sergt. F. Shipman (Sheffield); 2039 Temp. Sergt.-Major J. H. Shone (Bangor); 467 Temp. Sergt.-Major E. Smalley (Liverpool); 55477 2nd A.M. A. E. Smith (Reading); 26072 1st A.M. E. Stevens (Basingstoke); 1626 Flight Sergt. J. Stevenson (Stourbridge); 78312 Temp. Sergt.-Major H. L. Stidworthy (Edmonton); 16919 Corpl. E. G. Strange (Wootton Bassett, Wilts.); 403928 Corpl. G. F. Surtees (Mill-on-Lyne); 15566 Corpl. F. Swift (Bradford); 29564 Corpl. A. Tarlington (Sparkbrook); 16625 Flight Sergt. G. Thom (Alloa); 57895 Sergt. C. J. Thompson (London W.); 7759 1st A.M. H. W. Triggs (Nunhead, S.E.); F/14193 C.P.O. W. J. Tuckwell (Henley-on-Thames); 126 Flight Sergt. J. Waeland (Canning Town); 8387 Sergt. C. G. Ward (Rochester); F/385 C.P.O. 3rd Gr. (E.) A. J. Wheeler (Felixstowe); 45811 Flight Sergt. A. Wilkinson (Manchester); 30216 Flight Sergt. F. W. Winter (Croydon); 1452 Sergt. (Temp. Sergt.-Major) G. H. Withers (Ripon); 3882 Flight Sergt. J. Wright (Glasgow); 6309 1st A.M. (acting corpl.) L. Wright (Woking).

#### Mentions in Despatches.

The following officers and other ranks of the Royal Air Force have been mentioned in despatches and reports for distinguished services:—

Capt. (temp. Major) W. H. Adkins; Ensign F. G. Allen (U.S. Naval Air Service); Lieut.-Col. R. J. Armes; Lieut. (temp. Capt.) E. A. O. Auldjo-Jamieson; Major (temp. Lieut.-Col.) R. K. Bagnall-Wild; Lieut. (Hon. Capt.) H. J. Bath; Major (temp. Lieut.-Col.) A. W. Bigsworth, D.S.O.; Capt. C. G. Beaton; Lieut. (temp. Capt.) S. Bell; Major (temp. Lieut.-Col.) E. G. O. Beuttler; Lieut. (Hon. Capt.) A. G. Bishop; Lieut. T. H. Boyd; Lieut. (Hon. Capt.) C. J. Clayton; Lieut. (temp. Capt.) F. Cleary; Lieut. (temp. Capt.) J. P. Coleman; Lieut. J. P. Colin, M.C.; Capt. G. M. Croil; Lieut. (temp. Capt.) C. Death; Lieut.-Col. (temp. Brig.-Gen.) B. C. H. Drew; 2nd Lieut. W. H. Dunton; Lieut. (temp. Capt.) A. Durston; Lieut. (Hon. Capt.) D. S. Earp; Lieut. (Hon. Capt.) H. W. Evans; Lieut. (temp. Capt.) H. G. Ford; Lieut. (temp. Capt.) J. Fowler; Lieut. (temp. Capt.) J. O. Galpin, D.S.C.; Capt. J. Gardiner; Lieut. (Hon. Capt.) E. S. Goodwin; 2nd Lieut. R. Gowing; Lieut. (temp. Capt.) P. G. Gundry; Capt. (temp. Major) T. D. Hallam, D.S.C.; Lieut. (temp. Capt.) A. H. Handman; 2nd Lieut. W. J. Harris; Lieut. (Hon. Capt.) C. S. Hay; Capt. F. W. Hill; Lieut.-Col. (temp. Brig.-Gen.) C. G. Hoare; Lieut. (Hon. Capt.) A. Holland; Lieut.-Col. (temp. Brig.-Gen.) A. Huggins, D.S.O.; Flight Observer W. B. L. Jones (deceased); Lieut. H. B. Kerruish; Major (temp. Lieut.-Col.) C. F. Kilner, D.S.O.; Lieut. (temp. Capt.) C. F. Latimer; Major (temp. Lieut.-Col.) C. F. Lee; Lieut. (Hon. Capt.) H. A. H. Lee-

tham; Lieut. (temp. Capt.) F. J. Linnell; Lieut. (Hon. Capt.) A. J. H. MacColl; Lieut. H. L. Macro; Lieut. (Hon. Capt.) N. A. Magor, D.S.C.; Major (temp. Lieut.-Col.) F. K. McClean; Lieut. (temp. Capt.) W. G. McMinnies; Lieut. (Hon. Capt.) B. A. Malet; Lieut. (temp. Capt.) T. Martin; Capt. (temp. Major) J. D. Maude; 2nd Lieut. J. F. Mehigan; Capt. (temp. Major) G. A. N. Mitchell; Capt. (temp. Major) R. F. S. Morton; Lieut. (temp. Major) A. Murray; Capt. (temp. Major) C. H. Nicholas; Major E. Osmond; Major (temp. Lieut.-Col.) R. E. C. Peirse, D.S.O.; Lieut.-Col. J. C. Porte; Lieut. (Hon. Capt.) C. A. Rea; Lieut. (Hon. Capt.) L. Ritson; Lieut. (temp. Capt.) C. W. Scott; Lieut. (temp. Capt.) L. G. Scott; Lieut. (temp. Capt.) H. Thrower; Lieut. K. C. Tilman; 2nd Lieut. J. Tozer-Mitchell; Col. (temp. Brig.-Gen.) A. V. Vyvyan, D.S.O.; Lieut.-Col. (temp. Brig.-Gen.) W. W. Warner; Lieut. (temp. Capt.) J. S. Wheelwright, D.S.C.; Major H. Wyllie.

F/20540 Acting 1st A.M. R. Bance; 18238 1st A.M. F. C. Cattermole; F./5665 C.P.O. 3 (E.) A. Fensom; F./6637 C.P.O. 3 (E.) W. J. Goodchild; Ch./17014 C.P.O. 3 (W./T.) E. A. Homer; 31026 1st A.M. R. H. Ibbertson; F./611 C.P.O. 3 (C.) E. W. Monk; 12368 Corpl. H. R. E. Sanders.

#### Awards for Bringing Down Gothas.

It was announced in a supplement to the *London Gazette* on May 31st that the King has been pleased to approve the following awards for gallant services rendered on the occasion of a hostile air raid:—

#### Distinguished Service Order.

Lieutenant (Temp. Capt.) C. J. Q. BRAND, M.C., R.A.F.—For conspicuous gallantry. While on patrol at night he encountered an enemy aeroplane at a height of 8,700 ft. He at once attacked the enemy, firing two bursts of 20 rounds each, which put the enemy's right engine out of action. Closing to a range of 25 yards he fired a further three bursts of 25 rounds each, and as a result the enemy machine caught fire and fell in flames to the ground. Captain Brand showed great courage and skill in manœuvring his machine during the encounter, and when the enemy aeroplane burst into flames, he was so close that the flames enveloped his machine, scorching his face. This officer has shown great determination and perseverance during the past nine months when on anti-aeroplane patrols at night, and his example of unassuming gallantry and skill has raised his squadron to a very high state of efficiency.

#### Military Cross.

Temp. Lieutenant A. J. ARKELL, R.A.F., Gen. List.—For conspicuous gallantry, when, during a hostile aeroplane raid, he and his observer, Private Stag, while on patrol, sighted a Gotha machine at a height of 10,000 ft. He opened fire at a range of 200 yards, and so manœuvred his machine as to give his observer, despite a vigorous fire being continually poured on to his machine from the enemy aeroplane, a target which offered the best possible advantage for attack. Private Stag then opened a heavy fire upon the enemy aeroplane at close range, as a result of which the enemy machine burst into flames and crashed to the ground. Lieutenant Arkell showed the utmost coolness and courage during the engagement, the result of which was to cause the enemy machine to be brought down.

#### Military Medal.

No. 10652 1st Class Private A. T. C. STAGG, R.A.F. (Romsey).—While acting as Gunner-Observer to Lieut. Arkell on aeroplane patrol during a night hostile aeroplane raid, Private Stag showed great courage and skill in that, during the engagement with an enemy aeroplane at a height of 10,000 ft., and although under a heavy machine gun fire from the enemy, he was able to take advantage of the skilful manœuvring of the machine by Lieutenant Arkell which enabled him to open a heavy fire on the enemy. As a result of this fire the enemy machine burst into flames and crashed to the ground entirely out of control.

#### Royal Air Force.

INCLUDED in the list of names forwarded to the Secretary of State for War by General Sir Herbert C. C. Plumer, G.C.B., G.C.M.G., G.C.V.O., A.D.C., under date of April 18th, of those who have served under him in Italy, whose distinguished and gallant services and devotion to duty he considers deserving of special mention, are the following:—

#### Royal Air Force.

Lieut. H. E. Ambrose (late Gen. List); Lieut. (Temp. Capt.) W. G. Barker, D.S.O., M.C. (late Gen. List); Lieut. (Temp. Capt.) A. E. Blackmore (late S.R.); Capt. (Temp. Major) C. H. B. Blount, M.C. (late R. W. Surre. Regt.); Lieut. (Temp. Capt.) J. J. Breen (late R. Irish R.); 2nd Lieut. A. L. Cockburn (late S.R.); Capt. H. A. P. Disney (late Cambs. R.); Lieut. (Temp. Capt.) M. B. Frew, D.S.O., M.C.



(late Gen. List); Lieut. (Temp. Capt.) S. C. Godfrey, M.C. (late R. S. Fus.); Lieut. H. Hadley, (late Gen. List); Lieut. and Hon. Capt. J. W. Higgins (late R.F.A.); Lieut.-Col. P. B. Joubert de la Ferte, D.S.O. (late R.A.); Capt. C. S. Macnab (late Cam. Highrs.); Major (Temp. Lieut. Col.) R. P. Mills, M.C. (late R. Fus.); Temp. 2nd Lieut. S. E. Mills (late Gen. List); Lieut. C. Lambert (late S.R.); Capt. (Temp. Major) A. M. Vaucour, M.C. (late R.A.); Lieut.-Col. (Temp. Brig.-Gen.) T. I. Webb-Bowen, C.M.G. (late Bedf. Regt.).

15737 1st Air-Mech. A. J. Allen; 10298 1st Air-Mech. (Acting Corpl.) A. W. Baker; 17188 1st Air-Mech. E. C. Barnes; 18053 Flight-Sergt. H. E. Beauchamp; 11149 1st Air-Mech. J. Bentley; 8023 Sergt. R. Clark; 5748 Flight-Sergt. J. Creek; 12228 Flight-Sergt. J. Edmond; 27374 1st

Air-Mech. A. W. Goodwin; 32751 Corpl. J. Hampson; 8487 1st Air-Mech. E. H. Lambert; 9097 1st Air-Mech. D. E. O. Nicholson; 12492 Corpl. G. Nicholson; 2006 Flight-Sergt. W. H. Payne; 128 Temp. Sergt.-Maj. W. G. Turner.

## "Mentioned in Despatches."

INCLUDED in the list of names of officers, non-commissioned officers and men serving or who have served under Field-Marshal Sir D. Haig's command during the period Sept. 25th, 1917, to February 24th, 1918, and who are mentioned in his despatch of May 20th, for distinguished and gallant services and devotion to duty are the following:—

### Australian Flying Corps.

Major C. L. Baillieu; Major D. V. J. Blake; Major W. O. Watt.



## "PER ARDUA AD ASTRA."

By Major CLEMENT INGLEBY, R.A.F.

WHEN scarce the grey of an August dawn has lightened the black of night,  
And the sharpest eyes must search the skies for the trace of a cloud snow-white,  
I have donned my coat and taken my seat and fastened my safety belt,  
Whilst the whispering balm of a morning calm is the only movement felt,  
I strap the belt loose around my waist and dream of flying as art,  
And incline mine ear to the sound I hear from my 'bus before we start.  
First the Pitot Tube, with his mouth exposed to the gentle summer breeze,  
Exclaims, "Beware! For this morning air is so cold it makes me sneeze."  
And the wires all cry simultaneously, "The tension is far too great,"  
But the loops reply with a fretful sigh, "Don't worry, we'll elongate."  
"The devil you will!" shout Dihedral, Stagger and Incidence,  
Midst mystical drones and grumbling groans from the parts that have more sense.  
Just then the sounds of these parts are drowned and melt away in a sob;  
As in one act at the word "Contact" starts the mighty engine's throb.  
Starts the throb of four times forty horse to a strain she can scarce abide,  
For the wooden chocks her progress blocks, as I open the throttle wide,  
Faster and faster the engine turns till the "prop" is just a blur,  
And protesting strains of the cambered planes are lost in that placid purr.  
Then I throttle down till she just ticks o'er with a rhythmical swishing sound:  
At a sign from me the machine is free and we taxi across the ground,

Now as a hound will strain the leash at the sight of a started hare,  
So when the Lift shall vanquish Drift we rise into God's pure air  
Then do the lift and the drift wires scream to the turnbuckles fastened true:  
"Release! Release! So bring us peace. A quarter a turn will do!"  
But the buckles are locked too fast to speak or even to turn their eyes,  
For my rigger's best stands a stiffish test—and I always supervise.  
Then we climb to the groan of the engine thrust, while the Drift with glee shouts loud;  
Like a vulture grim we hang on the rim of a woolly-white fleecy cloud,  
Then up through the bumpy, filmy mists like a startled bird we fly,  
Till the sunshine bright on a sea of white in space meets the wond'ring eye:  
Full six thousand feet, and still we climb; now and then is brought to view  
Mother Earth below, 'neath this sparkling snow, wrapp'd in mists and shadows blue.  
Now the hill tops squat laugh gay to the sun, but the valleys are yet in shroud—  
Then a swift eclipse as the whole scene slips 'neath a lazy floating cloud:  
'Neath a crimson, violet, blue, gold cloud of a velvety substance soft—  
Ah! who shall write of this wond'rous sight, e'en tho' 'tis witnessed oft?  
Can words express to the motorist the feeling of altitude?  
To a seething race that sense of space and its silent solitude?  
Like a smiling bride the earth unveils herself to the ardent sun,  
But far to the right is still black night with the new day not begun.

## Decorations for the R.A.F.

It was announced in the *London Gazette* on June 3rd that the King has been pleased, on the occasion of His Majesty's birthday, to institute two decorations to be awarded to officers and warrant officers in the R.A.F., and two medals to be awarded to non-commissioned officers and men in the R.A.F. They are:—

THE DISTINGUISHED FLYING CROSS, to be awarded to officers and warrant officers for acts of gallantry when flying in active operations against the enemy.

THE AIR FORCE CROSS, to be awarded to officers and warrant officers for acts of courage or devotion to duty when flying, although not in active operations against the enemy.

THE DISTINGUISHED FLYING MEDAL, to be awarded to non-commissioned officers and men for acts of gallantry when flying in active operations against the enemy.

THE AIR FORCE MEDAL, to be awarded to non-commissioned officers and men for acts of courage or devotion to duty when flying, although not in active operations against the enemy.

The first awards of the new decorations will be found on page 608.

## Back from Germany.

The following officers who were prisoners in Germany have arrived in Holland for internment:—2nd Lieut. E. L.

Fosse, R.F.C.; 2nd Lieut. A. Watson, R.F.C.; Lieut. E. D. Sliter, Can. Rly. Tps., attd. R.F.C.

The following have been transferred from Germany to Holland for internment: C.P.O., 2nd Gr., F. 1343 R. Mullins, R.N.A.S.; Air-Mech., 2nd Gr., F. 6746 W. Sturdy, R.N.A.S.

## King's Thanks for an Aeroplane.

LORD DESBOROUGH, as President of the Imperial Air Fleet Committee, has received from the King's private secretary the following telegram on the presentation, on May 25th, of an aeroplane named the "City of Hull" to the Australian Government by the Hull Chamber of Commerce and Shipping:

"The King as General-in-Chief of the Royal Air Force has received with much pleasure your announcement of the generous gift of an aeroplane presented to the Government of Australia by the Hull Incorporated Chamber of Commerce and Shipping. His Majesty trusts that it may be piloted with every success on the Western front."

## A Destructive Raid on Douai.

A GERMAN infantryman who was recently taken prisoner on the Western front made the following statement on the 16th inst., states the *Morning Post*:—"About eight days ago a British flying squadron bombed Douai. There were 700 casualties among our troops in the town; 400 were killed. I do not know what the other damage done amounted to; but it was a good deal."



# REPORT ON A.E.G. BOMBER, G. 105.

[Issued by the Technical Dept. (Aircraft Production), Ministry of Munitions.]

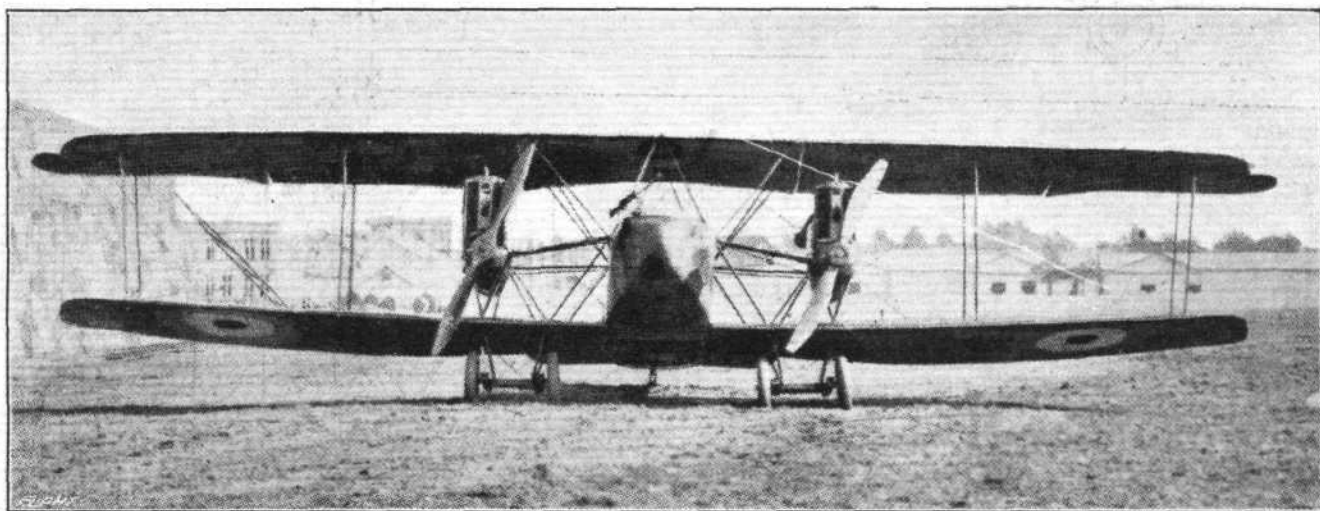
This machine was brought down by anti-aircraft fire at Achiet-le-Grand on December 23rd, 1917.

On a label protected by celluloid, mounted on a tube in the nacelle, is the legend—"Abnahme am (Accepted on) November 10th, 1917."

This machine, whilst carrying a similar power plant, is very different in construction from the Gotha type, which also embraces the Friedrichshafen Bomber reported on in I.C. 619.

Whereas the latter is generally constructed of wood, ply wood being used to a very large extent throughout, in the

Area of fin	.. ..	11.5 sq. ft.
Area of rudder	.. ..	20.8 sq. ft.
Balanced area of rudder	.. ..	2.6 sq. ft.
Area of elevators	.. ..	31.2 sq. ft.
Balanced area of elevators	.. ..	3.6 sq. ft.
Horizontal area of body	.. ..	206.4 sq. ft.
Vertical area of body	.. ..	209.2 sq. ft.
Total weight per h.p.	.. ..	13.7 lbs. approx.
Crew—Pilot and two passengers	.. ..	540 lbs.
Armament	.. ..	2 guns.



Front view of the A.E.G. Bomber.

A.E.G. steel is almost universally employed, not only in regard to the fuselage, nacelle, subsidiary surfaces and landing gear, but also in the wings themselves.

Needless to say, acetylene welding is freely resorted to throughout the construction, which, however, appears to be far from light.

On the whole, the A.E.G. aeroplane, judged by contemporary British standards of design, is decidedly clumsy, not only in detail work, but also in appearance. The performance is poor.

The leading particulars of the machine are as follows:—

Weight empty	.. ..	5,258 lbs.
Total weight	.. ..	7,130 lbs.
Area of upper wings	.. ..	395.2 sq. ft.
Area of lower wings	.. ..	335.2 sq. ft.
Total area of wings	.. ..	730.4 sq. ft.
Loading per sq. ft., wing sur.	.. ..	9.77 lbs. per sq. ft.
Area of ailerons, each	.. ..	17.9 sq. ft.
Area of balance of aileron	.. ..	1.8 sq. ft.
Area of tail plane	.. ..	34.0 sq. ft.

Engines	.. ..	2 260 h.p. Mercedes.
Petrol capacity	.. ..	123 galls. = 861 lbs.
Oil capacity	.. ..	11 galls. = 110 lbs.
Water capacity	.. ..	13 galls. = 130 lbs.

Other dimensions are also shown on the drawings on page 612.

## Performance.

(a) *Climb, 5,000 ft. in 10.3 minutes.*—Rate of climb at 5,000 ft.—390 ft. per minute. Climb, 9,000 ft. in 23.4 minutes. Rate of climb at 9,000 ft.—235 ft. per minute.

(b) *Speed at Heights.*—Level to 5,000 ft.—90 miles per hour approximately. At 9,000 ft.—86 miles per hour approximately.

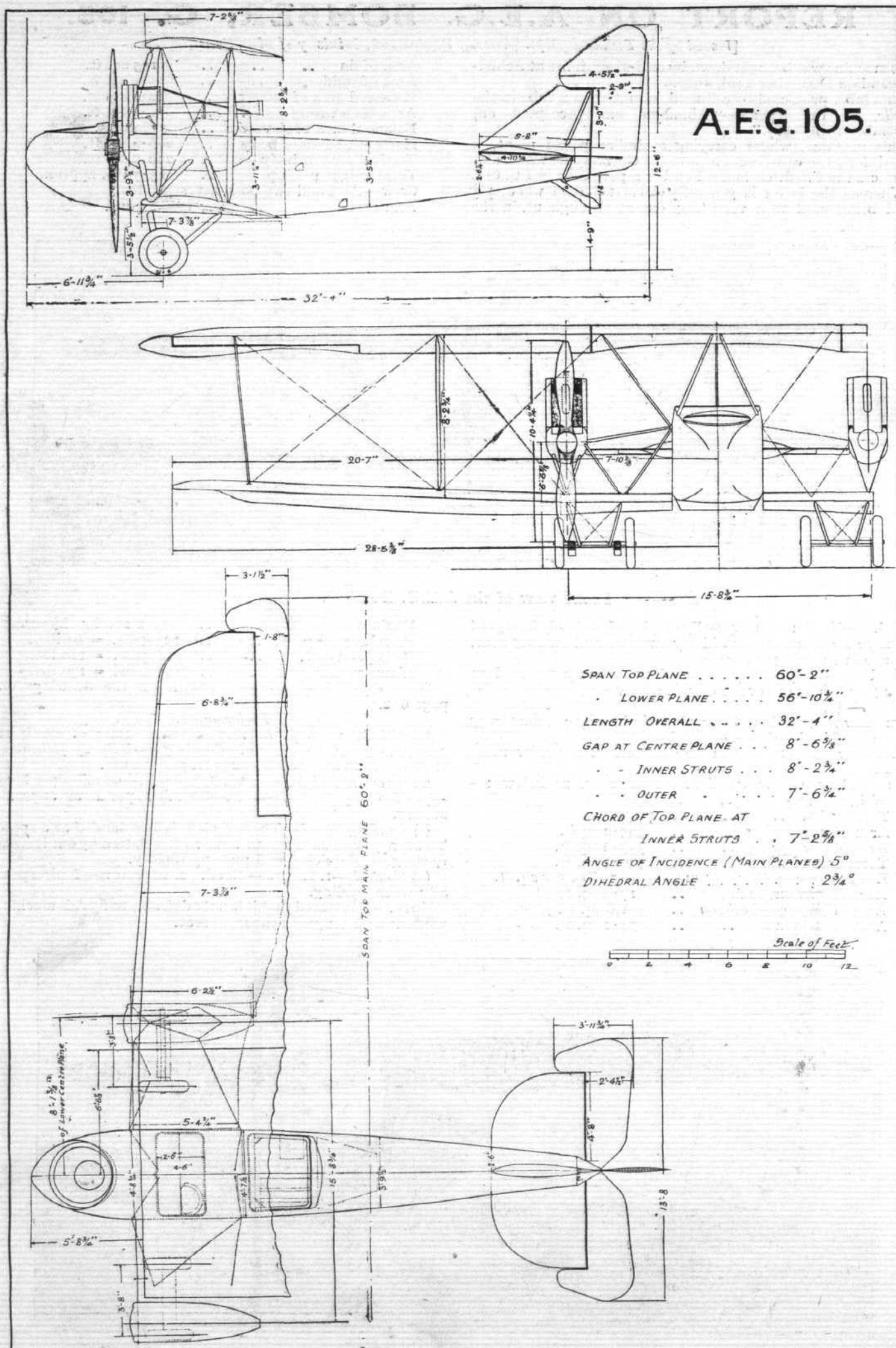
(c) *Landing Speed.*—The aeroplane is best landed at a speed between 75 and 80 miles an hour; after flattening out it sinks to the ground quickly and pulls up rapidly.

(d) *Control.*—1. Lateral—Good. 2. Elevators—Bad, especially when landing.

NOTE.—It is stated that it is not advisable to fly this machine without a passenger in the front seat.



Three-quarter front view of the A.E.G. Bomber. The propeller on the starboard side is the original; that on the port a temporary substitute.



THE A.E.G. BOMBER.—Plan, side and front elevations.



### Construction.

**Wings.**—As will be seen from the scale drawings, the wings are of characteristic form. The central portion consists of a rectangular centre cell permanently attached to the fuselage. The lower wings support the engines. In this centre cell the planes are set horizontally. At each side of it the lower main planes are swept upwards with a vertical dihedral of  $2.75^\circ$ , the top planes being kept flat, and both main planes are swept backwards in the horizontal plane to an angle of  $4^\circ$  for the

immediately under the engines, whilst between them and the fuselage is fixed a strip of corrugated aluminium which acts as a footway. The fabric is attached in the usual manner, and is stitched to the ribs both top and bottom. The two surfaces are stitched together behind the metal rod, which acts as a stringer, and by this means the actual trailing edge wire is relieved of a certain amount of tension. The wing structure is internally braced by means of steel tubular cross-pieces and stranded cables. A single fitting is employed for the

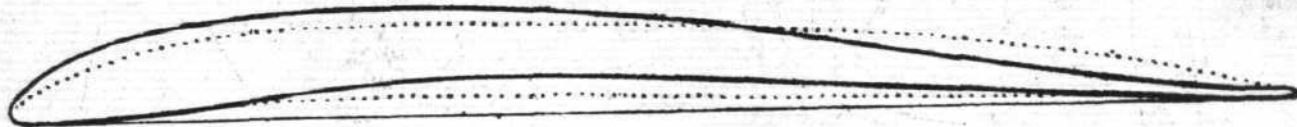


Fig. 1.—Aerofoil section A.E.G. aeroplane.

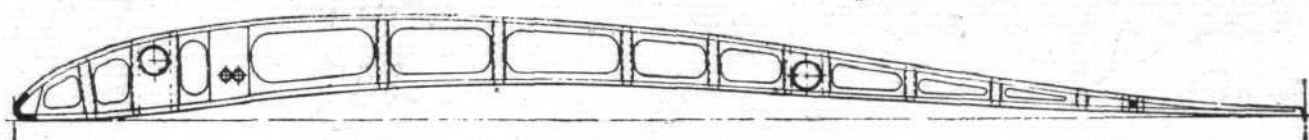


Fig. 2.

bottom plane and  $3^\circ$  for the top plane. As the central portion of the upper main plane has 4 ins. of negative stagger relative to the bottom plane, this difference in angle brings their tips practically vertically over one another. The angle of incidence attains a maximum of  $4^\circ$  at the base of the engine struts, i.e., 7 ft. 10½ ins. from the centre. At the second strut the angle is  $3\frac{1}{2}^\circ$ , and at the end strut  $2\frac{1}{2}^\circ$ . These angles are painted in circles on the surface of the planes, evidently for the convenience of riggers. The camber of both planes is washed out gradually towards the tips, and a representative section of the main planes taken at the junction of the engine bearer struts is given in Fig. 1. For purposes of reference the R.A.F. 14 section is superimposed. This figure also shows the position of the main spars, which are of steel tube. These are 50 mm. in outside diameter, but their wall thickness is not at present known. In order to allow the thinning down of the wing section, these tubes are flattened out towards the extremity of the wing. They are chamfered down to a narrow end and a flat plate acetylene welded on to each side; thus at the spar tip the section is roughly rectangular. The main spars are kept parallel throughout the whole of their length, and are attached to the central cell by means of pin joints, similar to those on the Friedrichshafen. The ribs are of solid wood and are constructed as shown in Fig. 2. It is rather notable in comparison with other German machines of all types that ply wood is almost entirely absent. In the A.E.G. construction the rib webs are perforated and strengthened by wooden uprights at intervals and are glued into a

attachment of the interplane struts and for that of the bracing tubes. This fitting is shown in Fig. 4. It is a tight fit on the spar, to which it is fixed by a bolt, and is formed with an extension lug which acts, as shown, as an anchorage for the bracing tube, whilst a sideways extension of the same lug carries an eye for the bracing wire. It is provided with a cup-shaped upper extension, into which there is screwed a steel dome which carries the ball of the strut socket fitting and also acts as a wiring plate for the interplane bracing wires. As shown in the sketch, the fabric is run into the space between the upper and lower flanges of this fitting, the whole making a very neat job.

### Struts.

These are of streamline section steel tube and of uniform dimensions throughout. The section is 92 mm. long by 48 mm. broad. The ends are sharply tapered down, and into them



Fig. 3.

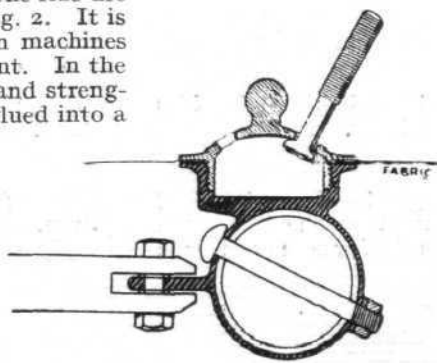


Fig. 4.



Fig. 5.

grooved flange. The ribs are placed 300 mm.—325 mm. apart—and are not directly or firmly attached to the spars on which they are a relatively loose fit. Passing through the ribs of the bottom plane and extending from their junction with the centre section to the extreme outside strut are two steel tubes, approximately 17 mm. in diameter, which act as housings for the aileron control wires. These tubes are very strong, and it is thought possible that they are also counted upon to lend rigidity to the wing structure. The leading edge, which is of the usual semi-circular section, acts as a distance piece, as also does the wire trailing edge. Thirteen inches in front of the last named is a stringer formed of a steel rod. Apart from this, the spars are the only longitudinal members of the wings. Between the main ribs are false ribs running from the leading edge to a point a few inches behind the leading spar and applying only to the upper surface. One of these false ribs is sketched in Fig. 3. It is secured as shown in the sketch by means of a semi-circular saddle and a wrapping of tape which passes as shown through holes in the rib. Where it meets the leading edge it is furnished with triangular packing pieces, which locate and hold it in position. The lower plane is covered as to its upper surface with sheet metal

is welded a cupped ferrule which drops on to the ball shown in sketch Fig. 4, and is there held in position by a cotter pin. The attachment is shown complete in Fig. 5. This joint gives a considerable range of lateral freedom, as is the usual practice on machines of German design.

### Fuselage.

The whole of the fuselage is built up of steel tubes welded together. It is of plain rectangular section, and the cross tubes are attached directly to the main booms without the intervention of any clips. This detail of construction is shown in Fig. 6, which also illustrates the single and double lugs which are used for the purpose of securing the bracing wires. Under the nacelle and in the neighbourhood of the main petrol tanks and the bomb racks the fuselage is reinforced with thin tubular steel tie-rods. Fig. 7 shows the manner in which the upper booms of the fuselage are provided with sockets for the inclined struts of the central cell. The fitting consists of two circular steel plates welded into position to form an integral part of the frame joint, the front one of these flanges being provided with lugs for the anchorage of bracing cables. The inclined struts are secured by a ring of short set screws

wired together as shown. If appearances are to be trusted, this form of attachment, whilst being strong and convenient, is excessively heavy. Unlike the practice which is pursued in the Friedrichshafen Bomber, wherein the main frame consists of three separate sections, that of the A.E.G. is in

provided. The mounting of the engines is clearly shown in the front and side elevations. In front there are four struts which converge to a joint on the leading spar, whilst at the rear there are two struts which meet at a joint on the trailing spar. The attachment of the former is shown in Fig. 8. The bell-shaped housing attached to a cup on the spar joint contains a ball-end set screw which screws

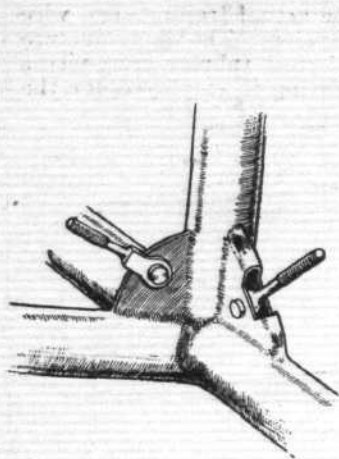


Fig. 6.

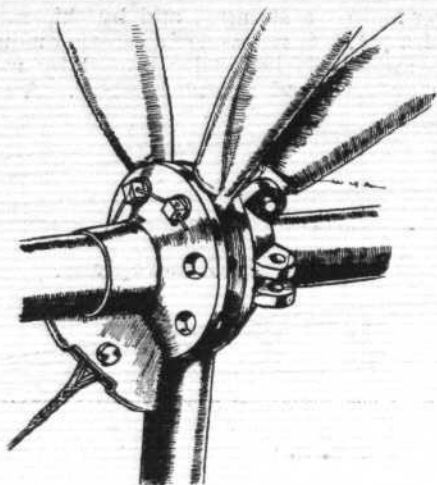


Fig. 7.

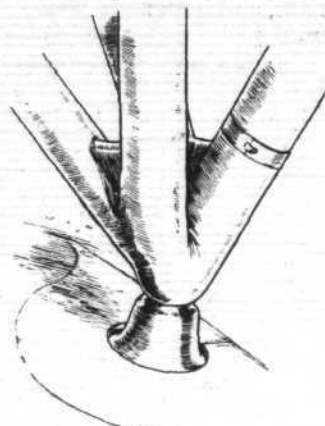


Fig. 8.

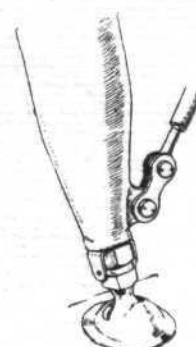


Fig. 9.

one piece from stem to stern. The longerons are 30 mm. in diameter and the transverse members 30 mm., these dimensions being retained up to the extreme tail end. The nose part of the frame is covered in with three-ply wood, but behind this a double covering of fabric is used, under which the tubular construction is completely hidden. Behind the after cockpit

into the foot of the four struts which are here united by welding. The inclined transverse struts are taken from the spars to the engine mounting and cross struts from thence again to the upper booms of the fuselage. In order to provide simplicity of erection these subsidiary struts are provided with a means of adjustment as shown in Fig. 9. At one

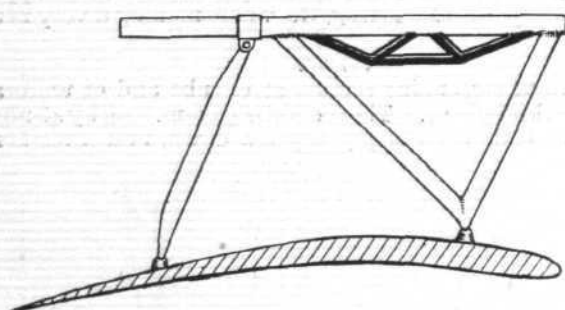


Fig. 10.

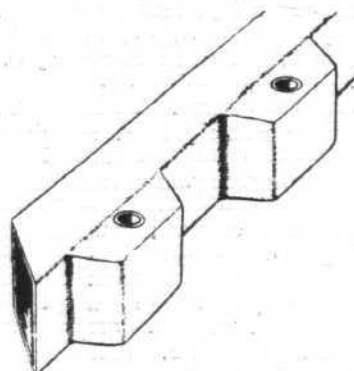


Fig. 11.

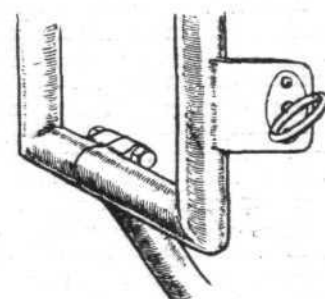


Fig. 12.

a single covering only is adopted and laced the whole of its length so that it is removable in its entirety.

### Engine Struts.

These are of streamline steel tubing and embrace joints of a somewhat similar type to those used on the interplane struts; that is to say, a certain amount of free movement is

end they terminate in a ball-ended set screw screwed into the tapered end of the strut and secured by a lock nut.

### Engine Mounting.

The engine bearers are of steel rectangular section, measuring 40 mm. high by 30 mm. broad, with a wall thickness of approximately 2 mm. These bearers are welded to the struts which

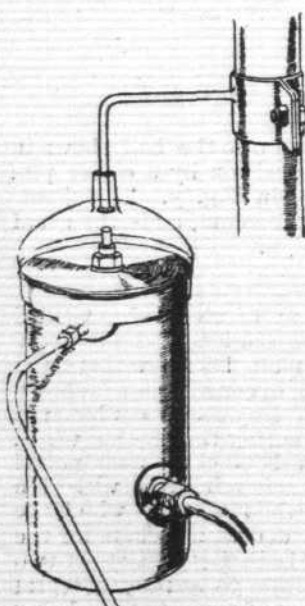


Fig. 13.

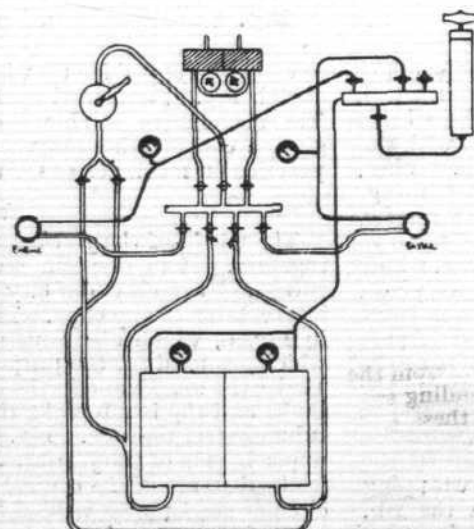


Fig. 14.

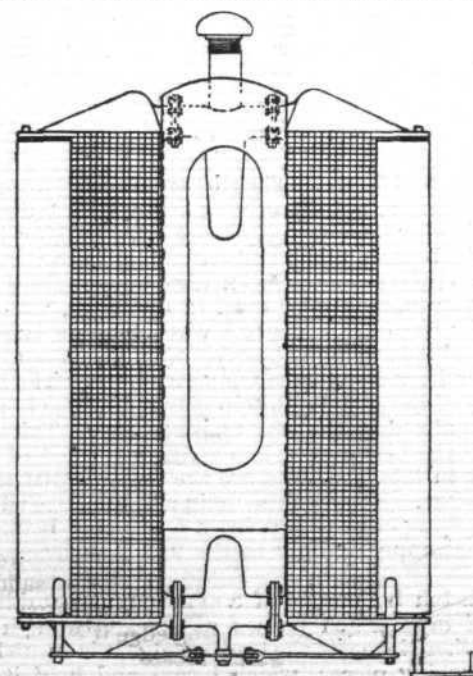
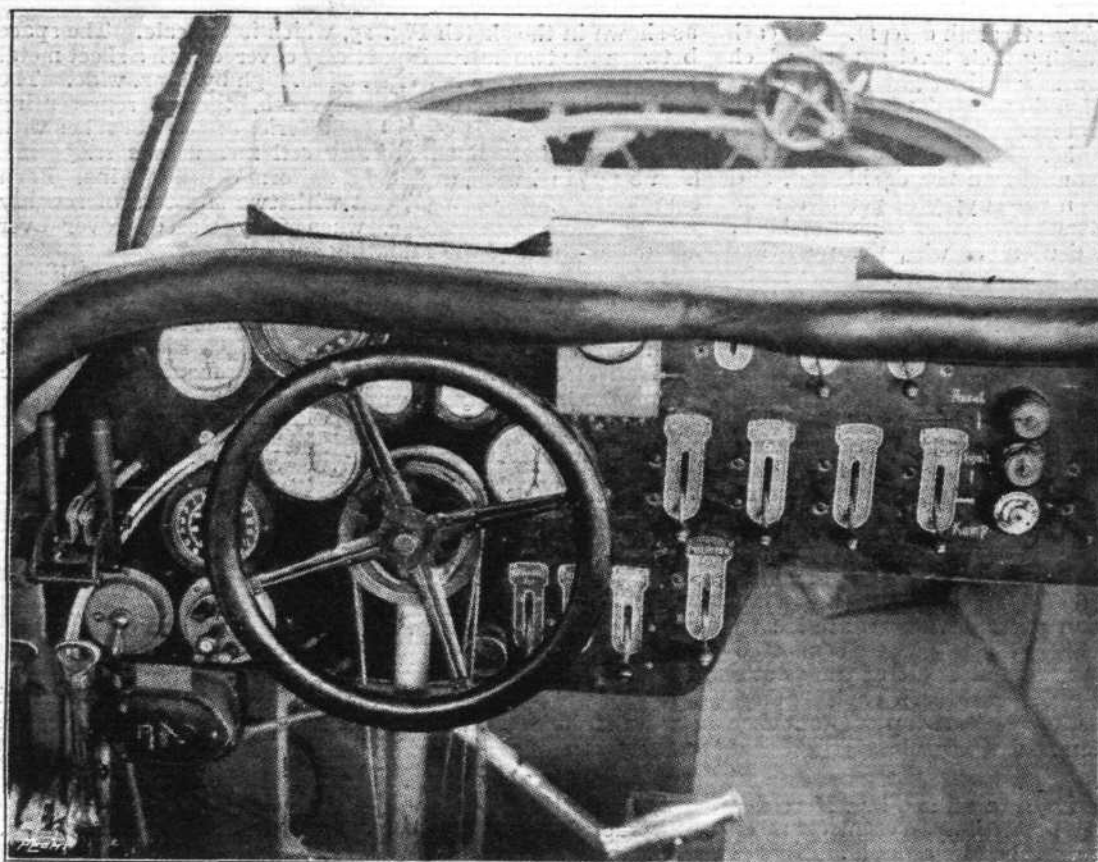


Fig. 15.





A. Instrument board in pilot's cockpit.

support them, as shown in Fig. 10, and for the greater part of their length are reinforced by a system of tubular tie-rods also welded in position. Box attachments welded to the engine bearers, as shown in Fig. 11, are provided for the crank-chamber holding-down bolts. The engine is not directly mounted on the steel bearers, but upon  $\frac{1}{2}$ -in. wooden washers. Owing to the deformation inseparable from so much welding the engine mounting is of very clumsy appearance, and, in fact, the quality of welding does not appear to be up to previous German standards, but the construction would appear to be light.

#### Engine Fairing.

As shown in the photographs, the engines are almost completely enclosed in a fairing composed of detachable aluminium panels. The necessary framework and clips are provided for panels totally enclosing the engine, but it would seem that this bonnet right over the heads of the cylinders has been discarded. The tubular framework which supports the panels is an elaborate piece of work comprising a multiplicity of welded joints. It consists of 16 mm. tubes, to

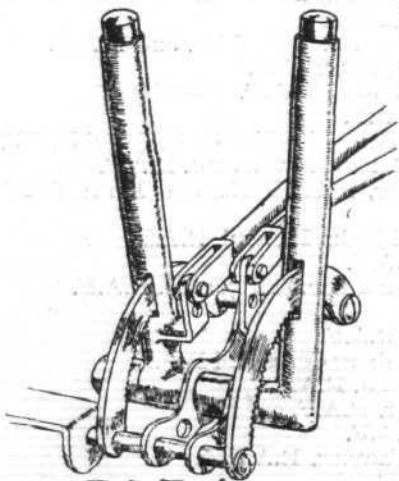


Fig. 16.

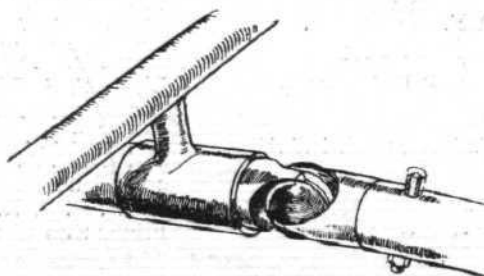


Fig. 17.

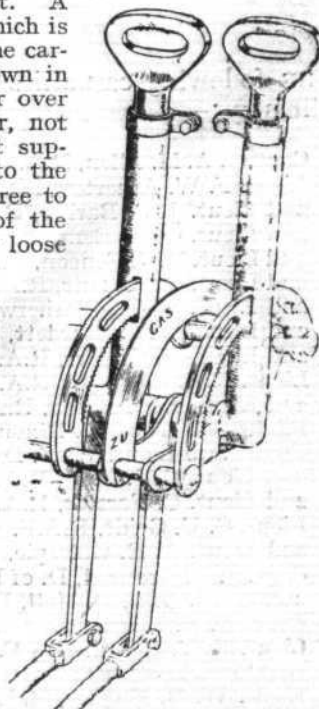


Fig. 18.

which are attached lugs for carrying the necessary turn-buttons. The framework is made in two halves so as to be easily detachable, and a joint for that purpose is made, as shown in the sketch Fig. 12. It will be noticed that a narrow slot for the exit of air passing over the engine is provided at the rear end of the engine egg, an opening of somewhat similar dimensions being between the two halves of the radiator.

#### Engines.

The engines are the standard 6-cylinder 260 h.p. Mercedes. These engines have already been fully described, and no im-

portant novel points are adopted. A new shape has been adopted for the exhaust pipe, and this is clearly shown in one of the photographs—an inverted cone is placed in the belled mouth of the pipe. The usual water pump greaser is fitted and worked by a lever in the pilot's cockpit. It is of rather less clumsy design than that of the Friedrichshafen, but employs the same principle. The throttle is interconnected with the ignition advance as described in the Friedrichshafen report. A small fitting, the purpose of which is not very clear, is attached to the carburettor, and consists, as shown in Fig. 13, of a bell-shaped cover over the top of the float chamber, not directly connected thereto, but supported on a bracket clipped to the main water pipe. The bell is free to slide up and down the stem of the bracket, on which it is a very loose fit, but is prevented from falling over the float chamber by a small washer. It is conjectured that this fitting may have for its purpose the

prevention of petrol having access to the hot exhaust pipe in the event of the machine turning over. Between the bell and the float chamber is a clearance of about  $\frac{1}{4}$  inch.

#### Petrol System.

The petrol system employed on the A.E.G. is as set out diagrammatically in Fig. 14. There are two main tanks, each of 270 litres = 95 gallons total capacity, and these are placed under the pilot's seat in the main cockpit. Two subsidiary tanks used solely for starting purposes and giving a gravity supply are mounted in the centre section of the top

main plane and are of roughly streamline form. Beneath them is a small cowling containing their level gauges, which are visible from the pilot's seat. On the right hand side of the main cockpit is fitted a hand-operated wing pump, the object of which is to draw petrol from either of the main tanks and direct it to the gravity tanks. Pipes from all four tanks are taken to a distributing manifold on the dashboard, and by means of seven taps thereon the supply of petrol can be directed from any one of the tanks to either engine or both. Two additional taps are provided on the wing pump so that the fuel for the gravity supply can be drawn from either main tank as required. The photograph A clearly shows the arrangement of the petrol taps, which are of the plain plug type. It would appear that the troubles associated with this form of tap have been overcome, as they show no signs of leaking or sticking. The level of the main tanks is indicated on the dashboard by two Maximall gauges. Those attached to the gravity tanks are made by Laufer, and employ the static head principle. They read up to 45 litres each, from zero to this figure being given by one and a half complete revolutions of the indicating hand.

#### *Petrol Pressure System.*

The sketch, Fig. 14, also shows in solid lines the arrangement of the petrol pressure system. The usual pressure pump is mounted on each engine, and pipes therefrom are led to a manifold mounted on the dashboard. This is also connected to a large hand pump on the right hand side of the pilot's seat. Gauges reading the pressure from each engine pump are provided, and there is also a blow-off tap for relieving the pressure of the whole system.

#### *Oil System.*

This is the usual system as fitted to all 260 h.p. Mercedes engines. The main supply of oil is carried in the crank chamber sump and is continually being refreshed by a small additional supply of fresh oil drawn from an external tank. This tank has a capacity of 5 gallons, is of rectangular shape, and is mounted at the side of the engine nearest to the fuselage. It is provided with a visible glass level, over which is a celluloid covered window let into the engine fairing, so that the oil level is visible from the pilot's seat.

#### *Radiator.*

Each radiator is composed of two halves bolted together,

as shown in the sketch Fig. 15, which is to scale. The space between the two halves is partially covered with a sheet metal panel pierced with a hole 1 ft. 6 ins. high by 4 ins. wide. The radiator is not actually honeycomb, though representing that appearance. It consists of a series of vertical tubes with transverse gills. Each radiator cell measures 2 ft. 3½ ins. high by 7½ ins. wide, and has a uniform depth of 4 ins. Each complete radiator is provided with two shutters of roughly streamline section. These, when fully closed, cover over about one-third of the radiating surface.

They are controlled from the pilot's seat by two levers shown in Fig. 16, which work them through universally jointed rods. The articulation in these rods is very neat and of the form shown in sketch Fig. 17. Each radiator is fitted with an electric thermometer, full details of which device

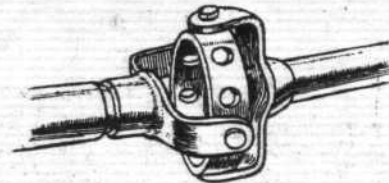


Fig. 19.

have been published. The dial of this instrument is carried on the dashboard and is furnished with a switch enabling the temperature of either radiator to be independently read.

#### *Engine Control.*

The throttle levers are of the plain twin variety, and are constructed as indicated in sketch Fig. 18. They are placed close together so as to be easily worked either in unison or separately. The connections between the levers and the carburettor are made as simple as possible, and the levers operate the throttle through a couple of universally jointed rods which extend from each side of the body to the engine eggs. The universal joints used are of the type shown in Fig. 19, there being apparently no particular desire on the part of the designer to economise weight in these details.

(To be continued.)

## THE ROLL OF HONOUR.

THE following casualties are announced by the Air Ministry:—

#### **Killed.**

Capt. J. A. M. Allen, R.A.F.  
Lieut. F. W. Atherton, M.C., R.F.A., attd. R.A.F.  
2nd Lieut. J. C. Barker, R.A.F.  
2nd Lieut. O. D. Bennett, R.A.F.  
2nd Lieut. R. C. Benson, R.A.F.  
2nd Lieut. T. F. Blair, R.A.F.  
2nd Lieut. W. G. Blatherwick, R.A.F.  
2nd Lieut. W. R. Burdett, R.A.F.  
2nd Lieut. H. G. Carr, R.A.F.  
Lieut. R. J. Chisholm, R.A.F.  
2nd Lieut. E. J. Dillon, R.A.F.  
Flight Sub-Lieut. H. Dixon, R.A.F.  
Flight Sub-Lieut. W. V. Dunfee, R.A.F.  
2nd Lieut. C. J. Ford, R.A.F.  
2nd Lieut. C. Forster, R.A.F.  
Lieut. C. U. Geidt, R.A.F.  
2nd Lieut. A. E. Gillespie, R.A.F.  
Capt. J. E. Greenall, D. of Lancaster's Yeo., attd. R.A.F.  
2nd Lieut. G. L. D. Hall, R.A.F.  
Capt. N. V. Harrison, R.A.F.  
Lieut. E. T. Heard, R.A.F.  
Lieut. E. I. Howell, Northn. R. and R.A.F.  
Lieut. W. B. Hughes, R.A.F.  
2nd Lieut. C. F. S. Jackson, R.A.F.  
Lieut. V. King, Royal Marines, attd. R.A.F.  
2nd Lieut. G. B. Knight, R.A.F.  
P.F.O. H. C. Lake, R.A.F.  
2nd Lieut. R. H. Lefebvre, R.A.F.  
2nd Lieut. W. E. Lefebvre, R.A.F.  
2nd Lieut. M. J. Levine, R.A.F.  
2nd Lieut. A. G. Levy, R.A.F.  
2nd Lieut. D. McCarter, R.A.F.  
2nd Lieut. J. G. McDonald, R.A.F.  
2nd Lieut. D. M. McFarlane, Sco. Rif. and R.A.F.  
Lieut. E. M. Meredith, R.A.F.  
2nd Lieut. C. L. Milburn, R.A.F.

2nd Lieut. J. J. Miller, R.A.F.  
2nd Lieut. E. P. H. Mitchell, Bord. Regt. and R.A.F.  
2nd Lieut. L. L. Morgan, R. Welsh and R.A.F.  
2nd Lieut. R. R. Munt, R.A.F.  
Lieut. G. Palardy, R.A.F.  
2nd Lieut. V. R. Pauline, R.A.F.  
2nd Lieut. C. A. Proctor, R.A.F.  
2nd Lieut. C. D. Proudfoot, S. Notts Hus. and R.A.F.  
2nd Lieut. P. A. F. Ridgway, R.A.F.  
2nd Lieut. C. C. E. Robinson, R.A.F.  
Lieut. F. J. Sanders, R.A.F.  
Capt. S. T. Saunderson, Nth. Irish Horse (S.R.) and R.A.F.  
2nd Lieut. C. R. Sheil, R. Muns. Fus., attd. R.A.F.  
2nd Lieut. J. H. Shooter, M.C., Yorks and Lancs (T.F.), attd. R.A.F.  
2nd Lieut. D. G. Smith, Middx. R., attd. R.A.F.  
2nd Lieut. E. Smith, R.A.F.  
Lieut. R. E. Smith, North'd Hrs. (T.F.), attd. R.A.F.  
Lieut. S. Smith, R.A.F.  
2nd Lieut. C. L. Smuts, R.A.F.  
2nd Lieut. J. C. Stack, Labour Corps and R.A.F.  
2nd Lieut. A. M. Stevenson, R.A.F.  
2nd Lieut. A. R. Stewart, R.A.F.  
Lieut. A. C. R. Tate, R.A.F.  
Flight Sub-Lieut. J. H. Taylor, R.A.F.  
2nd Lieut. E. C. Terry, R.A.F.  
Lieut. A. B. Thorne, R.A.F.  
2nd Lieut. P. Thornton, R.A.F.  
2nd Lieut. H. Watson, R.A.F.  
Lieut. H. M. Whitcut, S. Staffs. R., attd. R.A.F.  
2nd Lieut. E. J. Whitehead, R.A.F.  
Lieut. G. H. Whitmill, R.A.F.  
2nd Lieut. C. B. Wilkinson, R.F.A. (S.R.), attd. R.A.F.  
Capt. W. H. Williams, Lancs. Fus., and R.A.F.

#### **Died of Wounds.**

Lieut. D. J. Aitchison, E. Anglian R.F.A. and R.A.F.  
Capt. M. S. E. Archibald, R.E., attd. R.A.F.  
Lieut. W. A. S. McKerrell, R. Scots and R.A.F.  
Lieut. J. Mitchell, Sco. Rif. and R.A.F.



2nd Lieut. S. Ramsden, R.A.F.  
2nd Lieut. W. H. Townsend, R.A.F.  
2nd Lieut. F. F. Walker, R.A.F.

**Wounded.**

Lieut. C. H. Arnison, R.A.F.  
2nd Lieut. P. A. Banks, R.W. Kent R., attd. R.A.F.  
Capt. T. A. Batchelor, R.A.F.  
2nd Lieut. A. Bevan, R.A.F.  
2nd Lieut. W. R. Bilson, R.A.F.  
Lieut. G. A. Bird, R.A.F.  
Lieut. C. E. Black, Arg. and Suth'd Highrs. and R.A.F.  
2nd Lieut. C. S. Bowen, R.A.F.  
2nd Lieut. C. T. Bremickar, R.A.F.  
2nd Lieut. C. A. Brook, R.A.F.  
Lieut. J. Bursey, R.A.F.  
2nd Lieut. F. G. Brown, R.A.F.  
Lieut. B. D. Clark, R.A.F.  
2nd Lieut. R. A. Carter, Yorks Regt., attd. R.A.F.  
2nd Lieut. L. F. Cocks, R.A.F.  
2nd Lieut. A. L. Code, R.A.F.  
2nd Lieut. T. R. G. Cooke, E. Kent Regt. (T.F.), attd. R.A.F.  
2nd Lieut. T. C. Cooper, M.C., R. Lancs. Regt., attd. R.A.F.  
Pro. F./O. J. B. Davies, R.A.F.  
2nd Lieut. R. C. Day, R.A.F.  
Lieut. R. B. Donald, R.A.F.  
Capt. C. Faber, R.A.F.  
2nd Lieut. R. Fitton, R.A.F.  
Lieut. J. A. Fitzherbert, R.G.A. (S.R.), attd. R.A.F.  
Lieut. F. E. Gauntlett, R. Berks R., attd. R.A.F.  
Capt. H. M. Gibbs, R.A.F.  
2nd Lieut. W. F. Gonzalez, R.A.F.  
2nd Lieut. F. Green, R.A.F.  
2nd Lieut. D. Henderson, Sza. Highrs., attd. R.A.F.  
2nd Lieut. E. T. Hendrie, R.A.F.  
2nd Lieut. G. W. Higgs, R.A.F.  
2nd Lieut. A. C. Hine, R.A.F.  
2nd Lieut. B. Holding, R.A.F.  
2nd Lieut. H. W. Holmes, R.A.F.  
2nd Lieut. D. W. Hughes, R.A.F.  
2nd Lieut. G. A. Hunter, Dorset Regt. (T.F.), attd. R.A.F.  
2nd Lieut. J. E. R. Hyson, R.A.F.  
Capt. K. A. Lister-Kaye, W. Yorks Regt., and R.A.F.  
Lieut. A. Lomax, R.F.A., attd. R.A.F.  
2nd Lieut. R. G. Lye, R.A.F.  
2nd Lieut. J. P. Mackenzie, R.F.A. and R.A.F.  
Lieut. W. J. Mackenzie, R.A.F.  
Lieut. R. J. MacLachlan, R.A.F.  
Capt. J. A. Middleton, M.C., R.F.A. (T.F.) and R.A.F.  
2nd Lieut. J. H. Mitchell, R.A.F.  
Lieut. A. M. Morgan, R.E., attd. R.A.F.  
Lieut. J. E. G. Mcsby, R.A.F.  
Lieut. G. A. Mountain, R.G.A. (S.R.), attd. R.A.F.  
2nd Lieut. H. C. M. Nangle, R.A.F.  
2nd Lieut. E. N. Nathan, D.C.L.I. and R.A.F.  
2nd Lieut. G. A. Penny, R.A.F.  
2nd Lieut. W. L. Pinder, R.A.F.  
2nd Lieut. H. B. Redler, R.A.F.  
Lieut. D. L. Reed, Sher. For., attd. R.A.F.  
2nd Lieut. G. R. Riley, R.A.F.  
Lieut. H. T. Rushton, R.A.F.  
Lieut. H. Sainsbury, E. Lancs. Regt. (T.F.), attd. R.A.F.  
2nd Lieut. J. B. Sanders, R.A.F.  
Lieut. G. R. Savage, R.A.F.  
2nd Lieut. C. J. Shapley, R.A.F.  
Lieut. C. M. Sinclair, A.S.C. and R.A.F.  
Lieut. H. K. Spoonley, R.A.F.  
2nd Lieut. A. C. P. Stephenson, R.A.F.  
2nd Lieut. R. D. Stewart, S. Staffs (T.F.), attd. R.A.F.  
2nd Lieut. F. H. Stock, R.W. Kent. Regt., attd. R.A.F.  
Lieut. W. L. Sumsion, R.A.F.  
2nd Lieut. L. M. Thompson, R.A.F.  
2nd Lieut. A. Waterworth, R.A.F.  
Lieut. H. W. White, R.G.A., attd. R.A.F.  
2nd Lieut. H. L. Whiteside, R.A.F.  
2nd Lieut. L. M. Whittington, R.A.F.

Lieut. E. S. Wood, Sher. For., attd. R.A.F.  
2nd Lieut. H. S. Woodman, R.A.F.  
2nd Lieut. F. H. Wrigley, Res. Cav., attd. R.A.F.

**Missing.**

2nd Lieut. W. L. Andrew, R.A.F.  
Major R. Balcombe-Brown, R.A.F. (S.R.) and R.A.F.  
Lieut. E. V. Bell, R.A.F.  
Lieut. J. B. Birkhead, W. Yorks. Regt., attd. R.A.F.  
2nd Lieut. A. V. Bollins, King's (L'pool R.), attd. R.A.F.  
Capt. W. G. Chambers, Linc. Regt., attd. R.A.F.  
2nd Lieut. H. L. B. Crabbe, K.O. Huss., attd. R.A.F.  
Lieut. H. E. Dolan, M.C., R.A.F.  
2nd Lieut. L. E. Dunnett, R.A.F.  
2nd Lieut. J. Handley, R.A.F.  
2nd Lieut. A. H. Hill, R.A.F.  
Lieut. R. A. Holiday, R.A.F.  
2nd Lieut. T. A. Humphrey, R.W. Surr., attd. R.A.F.  
2nd Lieut. A. V. Jones, R.A.F.  
2nd Lieut. W. H. D. Knight, R.A.F.  
2nd Lieut. W. Lamont, R.A.F.  
Lieut. L. C. Lane, R.A.F.  
Lieut. G. B. S. McBain, D.S.C., R.A.F.  
Lieut. G. R. J. Parkinson, R.A.F. (late R.N.A.S.).  
2nd Lieut. D. H. Prosser, R.A.F.  
2nd Lieut. A. W. Rowdon, R.A.F.  
Lieut. R. R. Rowe, R.A.F.  
Lieut. R. Scott, Lond. Regt. (T.F.), attd. R.A.F.  
2nd Lieut. C. G. S. Shields, R.A.F.  
2nd Lieut. L. R. Sinclair, R.A.F.  
2nd Lieut. A. Slinger, R.A.F.  
2nd Lieut. W. Spencer, R.A.F.  
2nd Lieut. N. G. Stransom, R.A.F.  
2nd Lieut. C. E. Tylor, R.A.F.  
2nd Lieut. G. A. Whateley, R.A.F.  
Lieut. H. B. B. Wilson, Glas. Yeo (T.F.), attd. R.A.F.

The following are reported by the Admiralty:—

**Died of Accidental Injuries.**

F.28508 Acting Air-Mech. 1st Grade F. Wainwright, R.N.A.S.

The following are reported by the War Office:—

**Killed**

Lieut. G. J. Turner, Manit., attd. R.A.F.

**Previously Missing, now reported Killed.**

Lieut. A. W. Morey, M.C., R.F.C.  
2nd Lieut. D. L. Sisley, R.F.C.

**Died of Wounds.**

Lieut. L. C. Spence, M.C., Can. F.A., attd. R.A.F.

**Accidentally Killed.**

2nd Lieut. H. G. Carr, Aus. F.C.  
Lieut. L. George, Aus. F.C.  
2nd Lieut. J. S. Lord, Aus. F.C.  
2nd Lieut. R. O. Sherar, Aus. F.C.

**Wounded.**

Capt. J. R. Durgan, Aus. F.C.  
Lieut. H. R. Kincaid, E. Ont., attd. R.A.F.  
Lieut. A. Paterson, Aus. F.C.  
2nd Lieut. D'A. K. Stutterd, Aus. F.C.

**Missing.**

Lieut. O. C. Barry, Aus. F.C.  
Capt. R. W. Bell, W. Ont., attd. R.A.F.  
Major. A. D. Carter, D.S.O., New Bruns., attd. R.A.F.

**Previously Missing, now reported Prisoners in Turkish hands.**

Lieut. A. S. Mills, Yeo., attd. R.F.C.  
2nd Lieut. W. Taylor, E. Lancs., attd. R.F.C.

**Prisoners in Turkish hands.**

Lieut. R. A. Austin, Aus. F.C.  
Lieut. O. M. Lee, Aus. F.C.

**Previously Missing, now reported Prisoner in Bulgarian hands.**

2nd Lieut. N. F. Gaynor, London, attd. R.F.C.

**A Surrender in Mid-Air.**

ANOTHER instance of a Hun airman surrendering in mid-air was mentioned in a despatch from Mr. Hamilton Fyfe to the *Daily Mail* on May 23rd. He says: In a fight a day or two back the machine gun of a German pilot jammed. He made an effort to repair it; then, being unsuccessful, he put up his hands. After that he dived and our man followed him, but in diving the enemy airman lost control of his machine and landed very badly. He was dead when his pursuer came upon the scene.

**A Contretemps.**

AN extraordinary incident was reported by the *Daily Mail* correspondent in Paris on May 28th. He says a Belgian airman, Gheude, who specialises in the destruction of German balloons, was flying above one preparatory to attacking it, when the two balloonists took to their parachutes. The balloon shot up and struck the aeroplane, and was torn to pieces on the propeller. It sent the plane spinning earthwards, but by a miracle the machine righted itself and Gheude landed safely, and saw the balloon in flames in the sky.

# THE 240 H.P. (8-CYLINDER) MERCEDES.

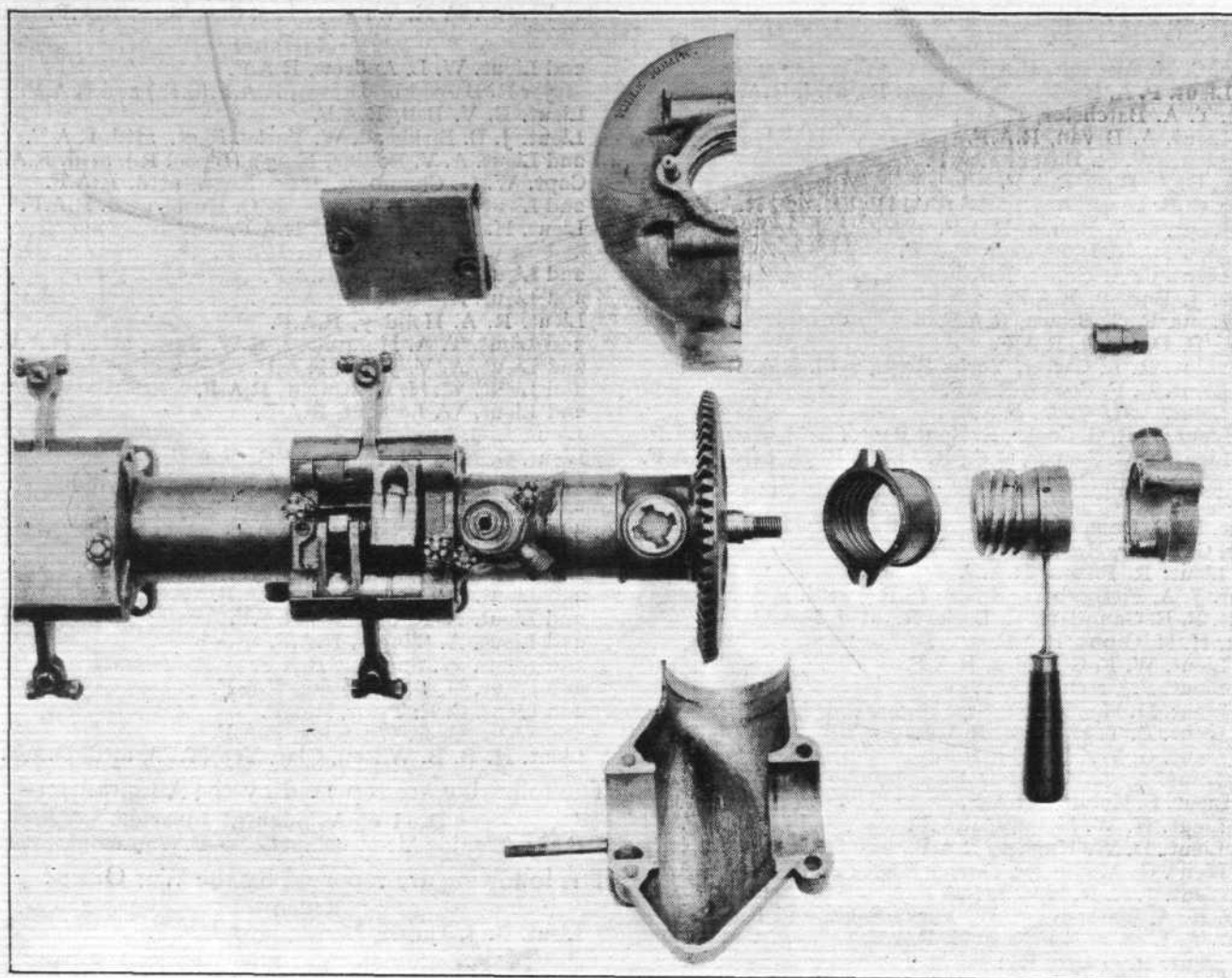


Fig. 14.—The 240 h.p. 8-cylinder Mercedes. Parts of the standard Mercedes half compression gear.

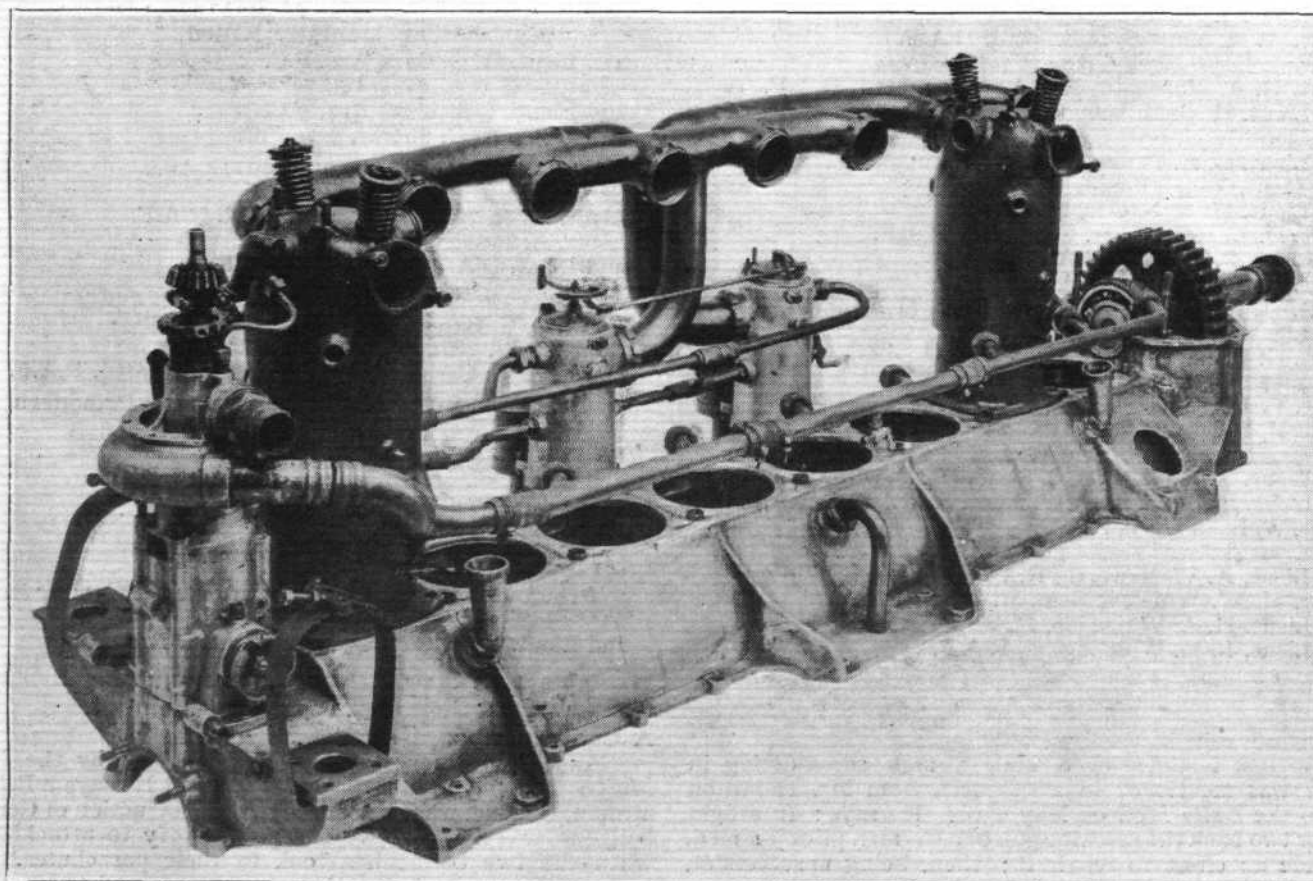


Fig. 16.—The 240 h.p. 8-cylinder Mercedes. Top half of crank-chamber, showing carburetors and induction pipes, and arrangement of water piping, &c.  
(See following pages.)



# THE 240 H.P. (8-CYLINDER) MERCEDES.

(Continued from page 593.)

## Carburettors and Induction System.

Two standard 2-jet 160 h.p. Mercedes Carburettors are fitted as shown in the photograph of the engine (Fig. 1). The two throttles are, of course, interconnected.

The left hand carburettor feeds cylinders 1, 2, 7, and 8, whilst the right hand carburettor feeds the four central cylinders. The induction pipes are of copper, lagged with asbestos cord and bound with

According to a report on the aeroplane from which this engine was taken, the main petrol tank (forming the pilot's seat) had a capacity of 50 gallons, and the machine carried an auxiliary tank of 6½ gallons capacity, situated between the pilot's and observer's seat.

## Crank-Chamber.

Apart from the additional length and the extension of the crankcase casting for the reduction gear, the crankcase, in its general construction, follows the

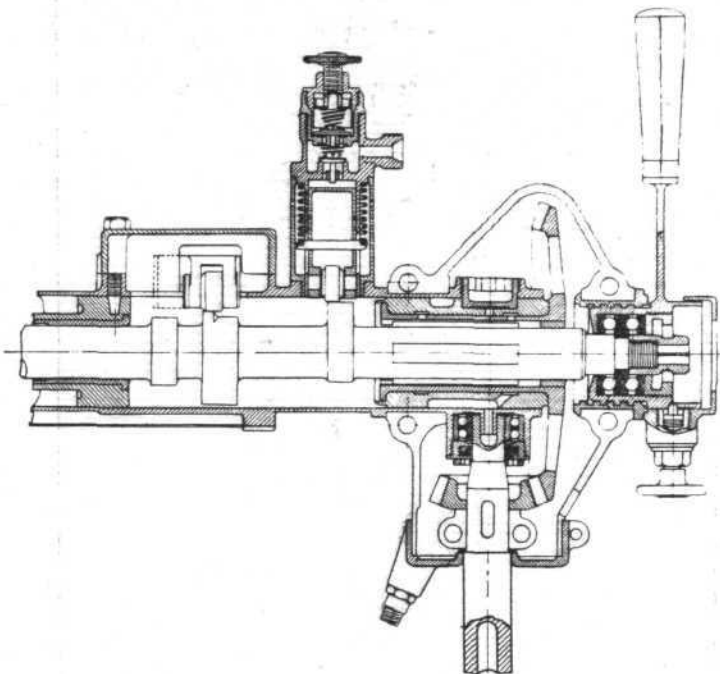


Fig. 15.—Arrangement of half compression gear, camshaft drive, and details of air pump.

adhesive tape. The internal diameter of the induction pipe is 54 mm., and the smallest diameter of the choke is 24 mm.

The air intake to the carburettors is through the large passages cast in the top half of the crank chamber, which lead to the central portion below the false bottom of the base chamber between the front and rear oil sumps, as in the 160 h.p. engines. Details of the carburettor are shown in the sectional drawing, (Fig. 17), and the general arrangement of the water piping to the water jackets of the carburettors in the photograph (Fig. 16).

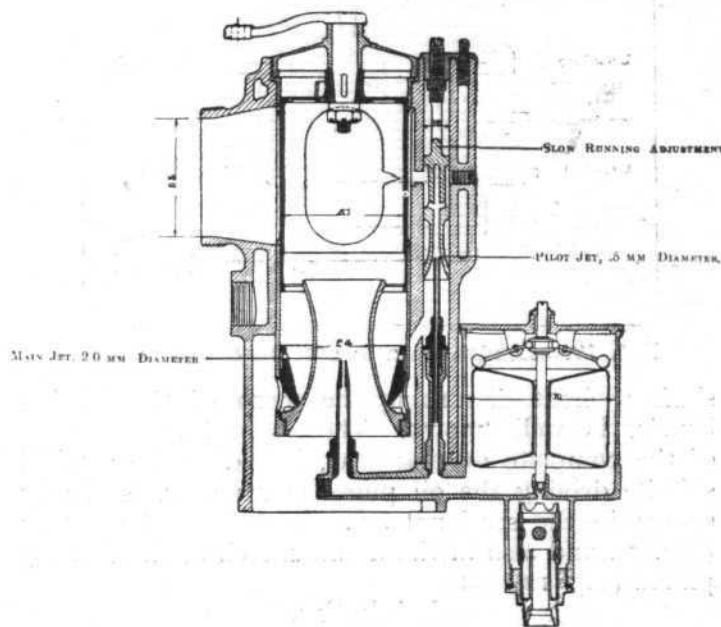


Fig. 17.—Semi-diagrammatic section through one of the carburettors.

design of the 160 h.p. Mercedes, the bottom half being constructed with a false bottom, below which are the two oil sumps, one at the front and one at the rear end of the base chamber, as shown in the sectional arrangement of the engine (Fig. 3).

Three breathers are provided in the top half of the crank-chamber on the exhaust side. The central breather is connected by a large diameter pipe to the air chamber, between the two oil sumps in the bottom half. This air chamber (as shown on Fig. 2) is open on the exhaust side, and communicates with the air intake passages to the two carburettors.

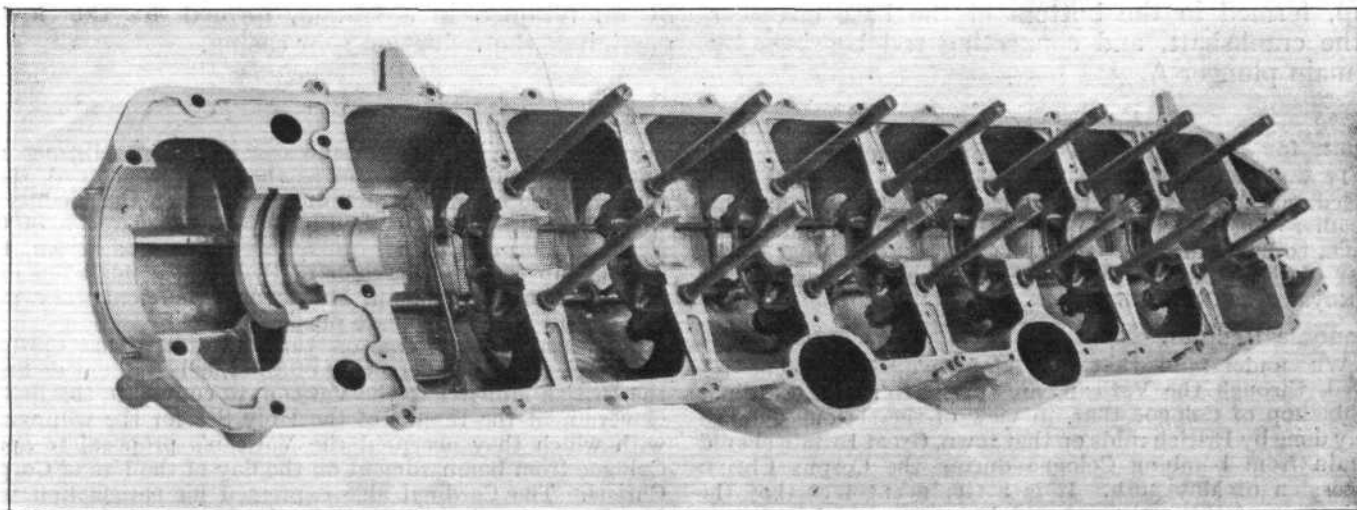


Fig. 18.—Bottom half of crank-chamber, showing the two air intake passages leading from the central air chamber between the front and rear sumps to the carburettors.

## Vertical Driving Gear.

The method of driving the camshaft vertical driving spindle (which also drives the magnetos and water-pump, by means of the floating bevel pinion fitted on the rear end of the crankshaft) follows standard Mercedes practice. The details of the construction of the floating pinion with its thrust race permitting slight longitudinal movement of the crank-

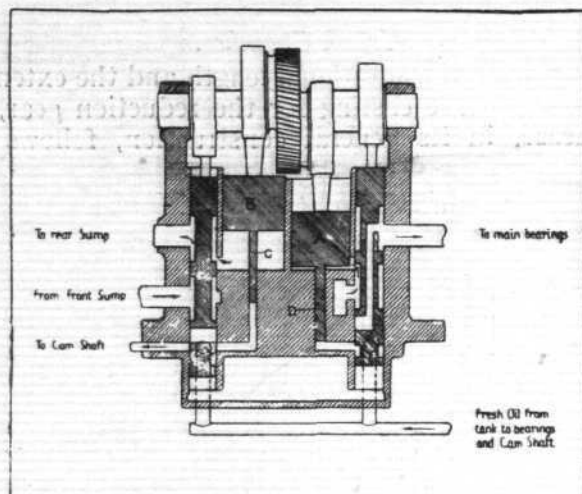


Fig. 19.—Diagrammatic section of oil pump.

shaft without disturbing the mesh of the driving bevels, is well known. The general arrangement of the complete driving gear, including the vertical spindle driving the oil pump worm gear, is clearly shown in the sectional arrangement of the engine (Fig. 3), and also in the detail sketch of the floating pinion (Fig. 12).

## Lubrication.

A diagrammatic sectional view of the standard 160 h.p. Mercedes oil pump, used on the 8-cyl. type, showing the various leads, and demonstrating the functions of this somewhat complicated pump is given in Fig. 19.

The oil pump is attached by studs through a flange to a face machine at the end of the bottom half of the base chamber, and is easily detachable. It is actuated through worm gearing by a vertical shaft, driven off the rear end of the crankshaft. In its functions this oil pump is somewhat similar to the pump used on the 260 h.p. Mercedes, described in detail in a previous report. Briefly described, the 160 type of oil pump embodies three main functions, *i.e.* :—

(a) Delivery of oil under pressure from the rear sump, formed in the bottom of the base chamber to the crankshaft, and connecting rod bearings by the main plunger A.

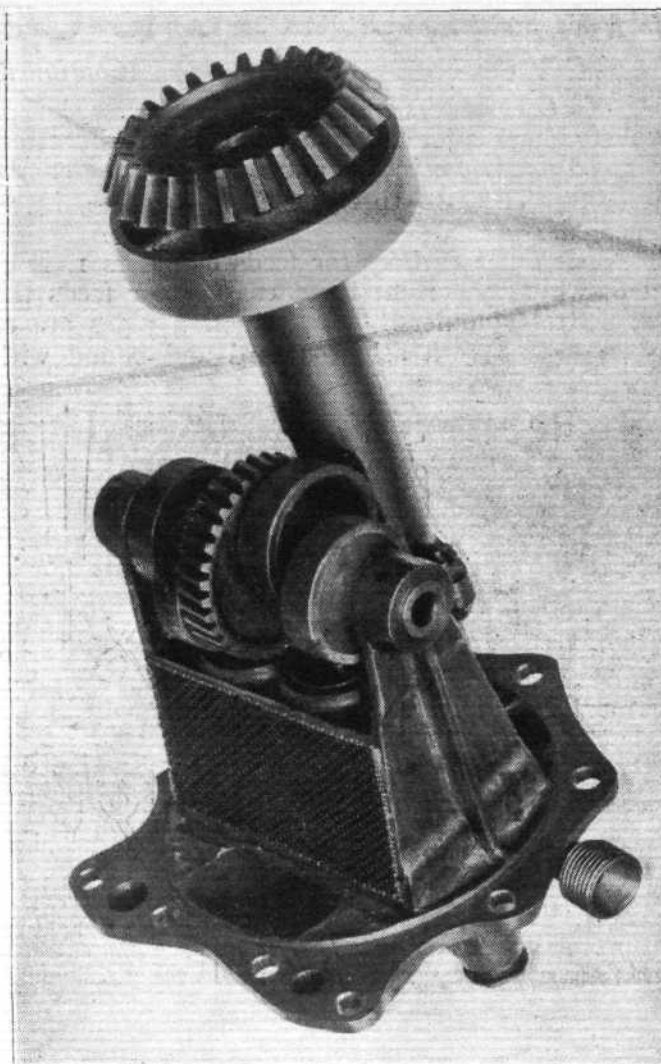


Fig. 20.—View of complete oil pump.

(b) Delivery of a charge of fresh oil at every stroke of the two auxiliary plungers (C and D) from the oil service tank to the main-bearings, camshaft bearings, and valve gear through the hollow camshaft.

(c) Suction from front sump in base chamber to rear sump by the plunger B.

Surplus oil returns to the front and rear sumps in the crank chamber through perforated steel plates from the overhead camshaft casing through a long trough of sheet brass attached to the underside of the camshaft casing, and through copper pipes leading from the front and rear ends of the trough to the crank chamber. The reduction gears are lubricated by oil retained in a trough, formed in the lower portion of the reduction gear casing.

(To be concluded.)

## Honour for the Royal Aero Club Chairman.

It was announced that on June 3rd the King has been pleased, on the occasion of His Majesty's birthday, to appoint Brigadier-General John George, Duke of Atholl, C.B., M.V.O., D.S.O., to be a Knight of the Most Ancient and Most Noble Order of the Thistle. The Duke of Atholl is Chairman of the Royal Aero Club.

## Cologne's Respite.

We understand that His Majesty's Government received, through the Vatican, an appeal from the Cardinal Archbishop of Cologne that, in view of the serious damage lately done by British raids on that town, Great Britain should abstain from bombing Cologne during the Corpus Christi procession of May 30th. It is a significant fact that the instigators of this policy should have come to beg for its relaxation on an important religious occasion, when it is remembered that the Germans did not spare worshippers in a Paris church on Good Friday. His Majesty's Govern-

ment, however, we understand consented on religious and humane grounds that, so far as they were concerned, there should be no aircraft attack on cities not in the vicinity of the battle front during daytime upon the occasion of the Feast of Corpus Christi. In a way a humane action, but by the subsequent behaviour of the Hun, a mistaken one. Huns will always remain Huns whatever cloak they may don to suit their immediate purpose.

A message from Rome on June 1st stated that Cardinal Gasparri, the Papal Secretary of State, asked Count de Salis, the British Minister to the Vatican, to convey to the British Government the thanks of the Holy See for the willingness with which they accepted the Vatican's proposal to spare Cologne from bombardment on the day of the fête of Corpus Christi. The Cardinal also expressed his satisfaction with Mr. Bonar Law's statement in the House of Commons in regard to the visit of the Prince of Wales to Rome. Let us hope the next request will receive by way of reply "Nothing doing."



## THE GERMAN L.V.G. BIPLANE, TYPE C.V.\*

THE L.V.G. biplane, which is built by the Luft Verkehrs Gesellschaft, is a two-seater, belonging to the C class (general utility machine). It is slower than the C. IV type Rumpler, its climb is not so good (4,000 metres in 35 minutes), and its ceiling is lower (slightly over 5,000 metres). The speed is: At 2,000 metres, 164 kiloms.; at 3,000 metres, 160 kiloms.; at 4,000 metres, 150 kiloms.

The following are comparative tables of the different types of L.V.G.'s and the L.V.G. C. V and Rumpler C. IV:—

		L.V.G.'s.		
Type	..	C. II	C. IV	C. V
Span (upper)	..	12.85	13.60	13.62
Span (lower)	..	11.35	12.00	12.85
Length overall	..	8.10	8.60	8.10
Height	..	3.00	3.10	3.20
Lifting surface	sq. m.	37.60	40	42.70
Weight	kiloms.	845	900	920
Engine power	..	175 h.p.	235 h.p.	225 h.p.
Make	..	Mercedes	Mercedes	Benz

		Type C. IV	Type C. V
		Rumpler.	L.V.G.
Span (upper)	..	12.60	13.62
Span (lower)	..	12.10	12.85
Length overall	..	8.40	8.10
Height	..	3.25	3.20
Lifting surface	..	33.50 sq. m.	42.70 sq. m.
Weight	..	1,010 kiloms.	966 kiloms.
Engine power	..	260 h.p.	225 h.p.
Make	..	Mercedes or Maybach	Benz.

Both upper and lower wings are set at a dihedral angle, that of the upper wing being  $1^{\circ}$ , and that of the lower  $2^{\circ}$ . There is no stagger and no sweep-back. The trailing edge is flexible. The ribs are spaced about 40 cm. apart, with false ribs in between. The incidence has been found to be as follows: First and second ribs,  $4\frac{1}{2}^{\circ}$ ; third to ninth ribs,  $5^{\circ}$ ; tenth rib,  $4\frac{1}{2}^{\circ}$ ; eleventh rib,  $4\frac{1}{2}^{\circ}$ ; twelfth rib,  $4^{\circ}$ ; thirteenth rib,  $3^{\circ}$ .

In plan view the upper wings are of slightly trapezoidal form, with rounded corners. Their chord is 1.74 m. In the centre there is a semi-circular portion cut away. The wing flags project 34 cm. beyond the wing tip, and have rounded tips somewhat resembling those of the Gothas. Their total

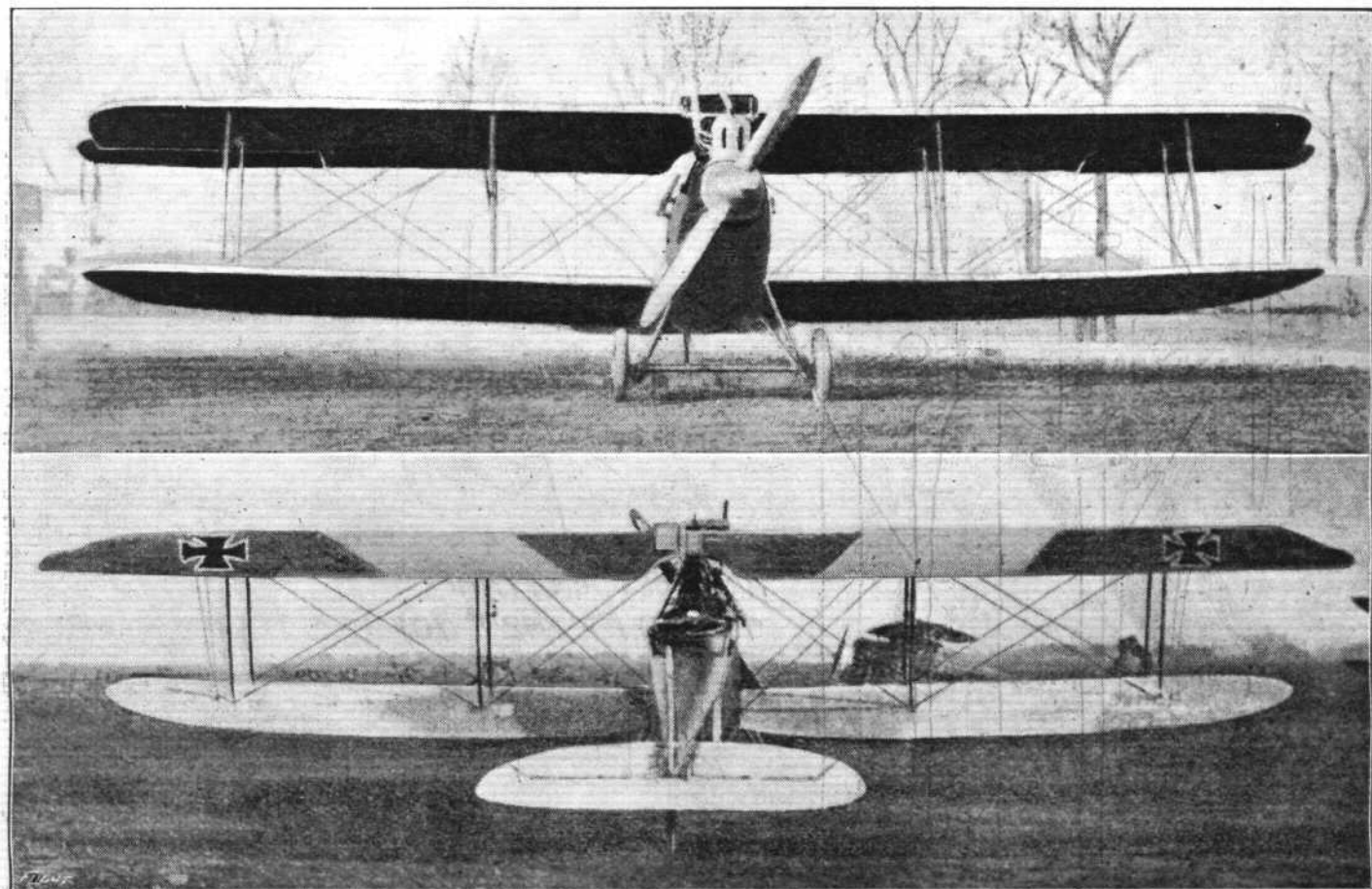
\* From *L'Aérophile*.

length is 2.61 m. Their chord varies from 53 cm. at the root to 75 cm. at the outer end. The wing flap hinges are parallel to the leading edge. The attachment is by means of keyed bolts, of which we give a diagram. This system was employed for the wing attachment on the Roland chaser D. II. It has the advantage of being easy to attach and dismantle.

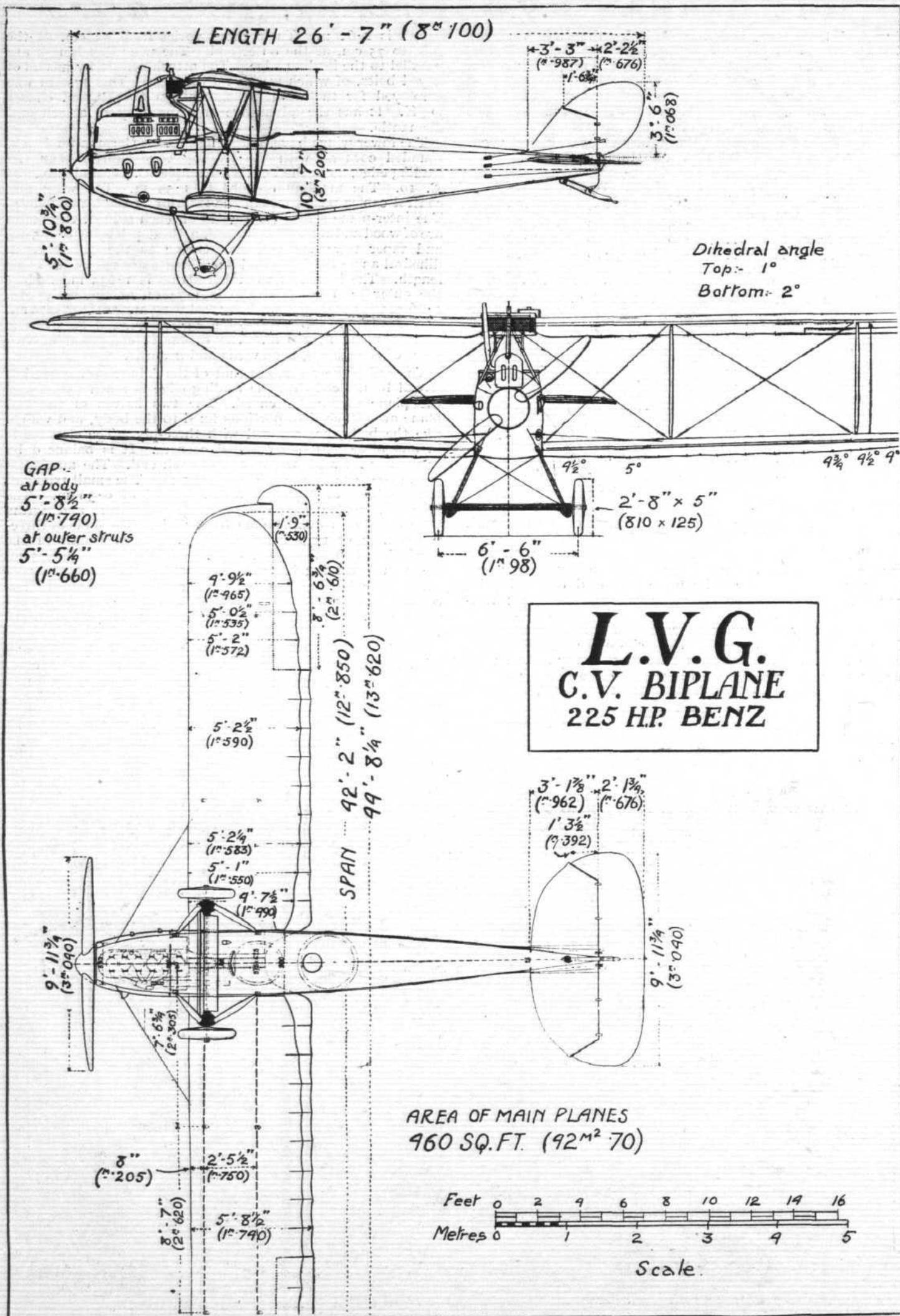
The lower wings have, following present German tendency, rounded corners, with the trailing edge shorter than the leading edge, as in the D.F.W., Rumpler C. IV, and Albatros C. 10. The maximum chord is 1.59 m. The wing flap control cables pass through the interior of the lower planes. The inter-plane struts (two pairs on each side of the body) are of wood and streamline in section, the depth being 0.105 m., and taper towards the ends. Owing to the difference in dihedral angle the inner and outer struts are not of the same length. The length of the inner struts is 1.635 m., and of the outer 1.59 m. The gap is 1.74 m. at the body and 1.66 at the outer struts. The total wing surface is 42.270 m., the area of the top plane being 23.260 m., and that of the bottom plane 19.210 m. The *cabane* is composed of two pairs of N's sloping backwards and inwards.

The tail plane resembles that of the Albatros chasers, but it will be noticed that the leading edge is much flatter and the plane of smaller chord. The two halves of the tail plane are attached to portions fixed to the body, and which, like the body, are covered with three-ply. The elevator is in one piece and has rounded corners. It is balanced by triangular forward projections at each end. The maximum span is 3.04 m., and the chord 0.65 m. The small triangles have a base of 0.39 m., and a height of 0.39 m. The balanced rudder is placed above the elevator, and forms with the fin an oval sloping backwards. The fin is of three-ply and is of trapezoidal form. The total height of the vertical tail members is 1.068 m. The chord is 0.675 m. (1.15 m. including balancing portion). The internal structure of the tail organs is in the form of metal tubes. The control cables pass into the body at a point 1.50 m. from the stern post. One of the elevator cables passes through the tail plane.

The body is entirely in three-ply wood, with flat sides and with deeply curved top and less curved bottom. The general lines of the body are less tapered than those of the Rumpler C. IV. The air screw is a "Garuda" of 3.04 m. diameter. The boss is encased in a "spinner."



Front and rear views of the L.V.G. C. V. biplane.



THE L.V.G. C.V. BIPLANE.—Plan, front and side elevations to scale.

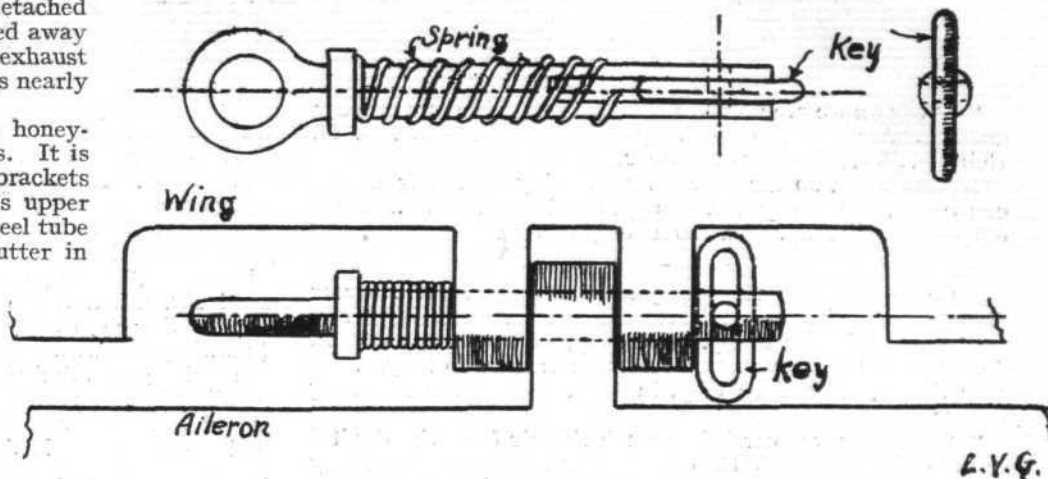


The engine is a 225 h.p. Benz, of the same type as that employed on the D.F.W. and F.D.H.G. II. The motor is supplied with petrol from two tanks of a capacity of 249 litres. On the left top plane is mounted a service tank. The tanks contain fuel sufficient for a flight of 3½ hours' duration. The upper portion of the engine is totally enclosed in a metal cover, which can be detached from the body. The exhaust is carried away upwards as in the Rumpler, but the exhaust collector is only slightly curved and is nearly vertical.

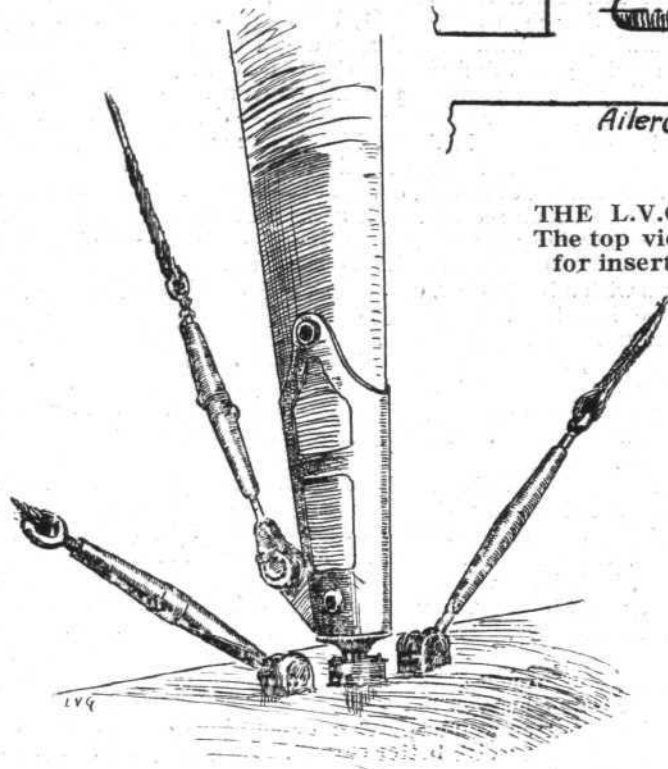
The radiator, which is of the honey-comb type, has a capacity of 35 litres. It is mounted in front of the top plane, on brackets from the front legs of the *cabane*. Its upper part is braced, by means of a small steel tube fork, to the upper plane. The shutter in

be rolled up or unrolled at the will of the pilot, thus permitting of obstructing the passage of the air and varying the cooling.

The pilot's cockpit—behind the engine—is of oval shape, its greatest dimension being from front to back. Close to it is the passenger's cockpit, with a gun ring of 0.60 m.



**THE L.V.G. C.V. BIPLANE.**—The locking hinge-pin for the aileron. The top view shows the pin removed, with the locking key in position for insertion. Below, the pin in position with the key "locked."



**THE L.V.G. C.V. BIPLANE.**—Sketch of one of the interplane strut fittings.

front of the radiator is one of the best adopted on German machines. It is simpler than those of the slat system. It consists of a movable blind of strong fabric, which can

diameter, which carries a support from the *Parabellum* machine gun. This support resembles those employed on certain of our machines. In front, and on the right hand side, is a fixed machine gun of the *Spandau* type, fitted with the usual interrupter gear worked by the engine. The gun is fired *via* Bowden cable. A wireless outfit is carried on board.

The under-carriage is of the Vee type, with streamline struts of wood. There is one pair of wheels, measuring 0.810 m. by 0.125 m. The tyres are stamped "Harburg," of Vienna.

The track is 1.98 m. The axle is enclosed in a streamline casing of wood, having a width of 0.20 m. The shock absorbers are in the form of "Sandows." As in the Rumpler C. IV, the rear inner inter-plane strut is braced to the nose of the body by a cable.

The tail skid, which is mounted on a small fin under the body, is of wood, and terminates in four laminations of steel 0.002 m. thick. The last lamination is reinforced with a steel shoe.

The machine is camouflaged in light green and mauve as regards the upper surface of the planes and the tail plane. The lower surface of the wings is painted light blue. In the passenger's cockpit there is an opening in the floor accommodating a camera, and the machine appears to have been intended for photographic reconnaissance work. There is no bomb gear.



Side view of the  
L.V.G. C.V. bi-  
plane.

# AIRISMS FROM THE FOUR WINDS

"LATER ON we are going to have women aviators, and very good aviators he thought they would make."—Mr. G. H. Roberts, M.P., Minister of Labour.

Nevertheless, so far as war and warring at the front are concerned, we fancy Mr. Roberts this time is wrong—**emphatically wrong.** And so he ought to be.

As a memento of the inauguration of the First Regular Aerial Post in the United States of America, a greeting comes to "FLIGHT" from Mr. J. J. Murray, of the Murray-Willat Co., Aeronautical Designers and Constructors, of 15, West 44th Street, New York City, in the terms of the following letter:—

"This letter was carried through the air from the Capital of the United States to the City of New York on the 15th day of May, A.D. 1918, the day of the inauguration of the First Regular Aerial Post in the United States of America.

"May this event commemorate the forging of another link in the chain of aerial transport which in time will join state to state and continent to continent; which, ignoring all barriers and bridging the chasm of international differences, will inspire minds to the accomplishment of the Brotherhood of Man."

THE sentiments expressed will without doubt be reciprocated by all throughout the world, who have followed the phenomenal developments in aviation. By way of another notch in the history of aeronautics, we reproduce in facsimile the envelope and stamp of this American Aerial Post, exactly as received by us, including, on the left, the number and mark of the—Censor.

THE career of Charles Nungesser, the celebrated French "ace," who has just been awarded the rosette of the Legion of Honour, is as thrilling as anything imagined by Jules Verne or H. G. Wells.

Just before the war he was a delicate, slender Parisian youth, the son of a provincial trader. He was put to study at the School of Arts, and later decided to take up aviation with a German who was seeking financial assistance. It was

only the money that flew, but certainly Nungesser has taken adequate revenge since for his losses!

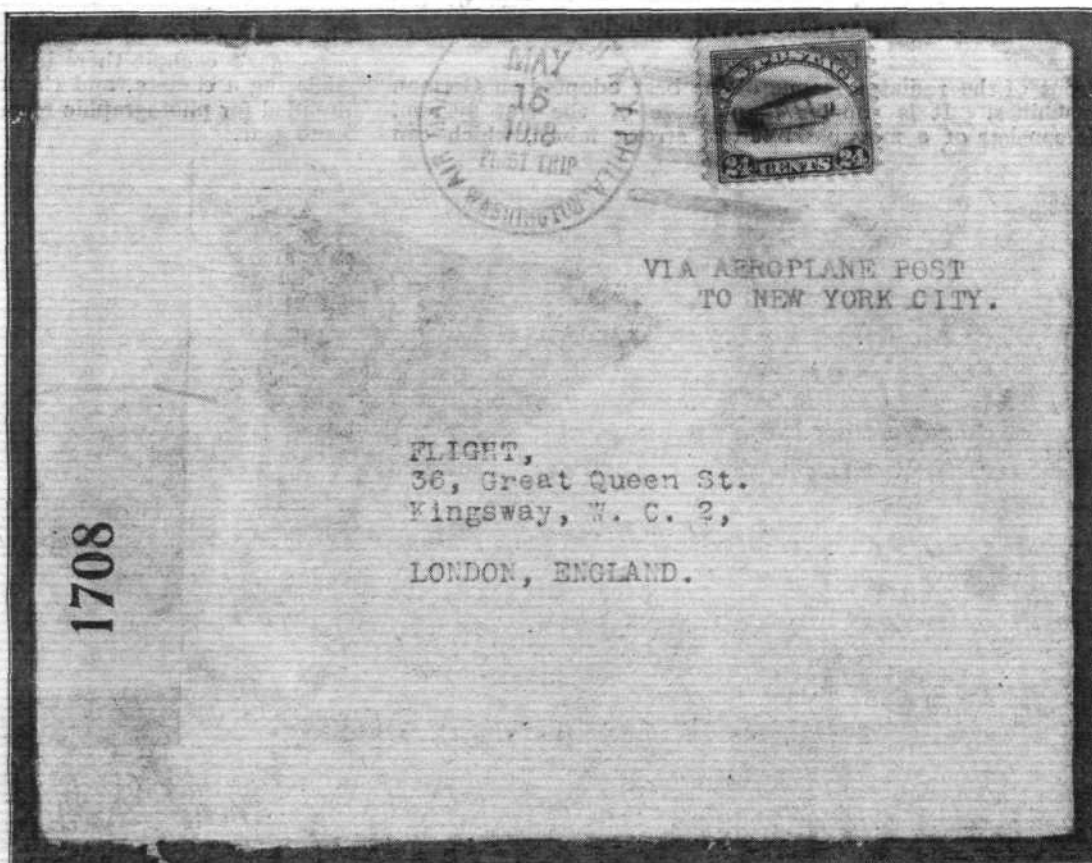
Returning from America at the outbreak of war he enlisted as a hussar. In the course of a very ugly little scrap, he and his lieutenant found themselves in the enemy lines. His officer was badly wounded, the young Frenchman managed to struggle with him to a place of safety; and then, to cap his exploit, held up from the shelter of a ditch a German staff car, killed the four occupants, drove the car himself to the French headquarters, represented himself as a spy (knowing that with his bedraggled appearance he would never otherwise gain admission to the General!), gave his report, handing in the valuable papers found in the car, which disclosed a very neat little plan for the demolition of Paris, and received the Medaille Militaire, never before granted after one month of service, and the gift of the car.

Such a man, of course, could not be kept out of the aviation service, and we see him next as a full fledged pilot, running the most windy hazards, many times "crashed"—more often the victor. On one occasion he came down inside the French lines with a broken leg, contusions all over his body, and a yet more horrible wound—the control lever of his aeroplane driven through his palate. Thanks to his peculiar double dentition, and the constitution of an ox, he survived, and after three months' forced inactivity, whereat he chafed, (for the great German guns were trained on Verdun, and his men were in the air fighting), he announced his intention to return.

This was scouted as madness, but a few days later this man, who could hardly drag himself on crutches, was aloft. "Before a fortnight I will have my Boche!" said he, and in a few days he brought down a sinister L.V.G. Two days later, inside the week, on a frail monoplane, he attacked a heavy Hun bomber, an "aerobus," he calls it, all bristling over with armament. There was a short, sharp duel, and a little later young Nungesser was seen poking about among the woods of Hauts-Fourneaux with a camera, intent on photographing the debris of his victim!

His seventeen wounds have not spoilt his daring, and never was the little rosette better earned. Long may he be spared to carry on!

The envelope and stamp of a letter in the first consignment of letters carried in the inauguration journey of the First Regular Aerial Post in the U.S. of America on May 15th.





ONCE again has the Hun been the direct means of providing comfort for Prisoners of War. This time it was in connection with the Matinée at the Palladium in aid of the Fund for the Welsh unfortunates who have fallen into the hands of the enemy. As "understudy" for George Robey, who was prevented under medical orders from taking part, Major James German, O.B.E., acted as auctioneer in disposing of several "lots," he having previously disposed of a box for a thousand guineas. In this category there was included a propeller, taken from a Hun aeroplane, which after being put up again and again, finally realised the nice little total of £910. So here we have another instance of good coming out of evil.

GERMAN mentality is difficult to follow, as most of us know, and a good example of the depth to which some of these cultured folk's minds reach is recorded by the *Hospital* in its last issue. Therein it is stated that "a wounded German officer of a Gotha was put in a bed at the bombed Etaples hospital. He haughtily summoned the commandant and demanded that he should be at once transferred to England, on the ground that he was a combatant, and under the regulations he could not be retained in the centre of a war area, which Etaples was, as the raid that night had shown, and other raids would prove it to be in the near future.

"When he persisted he was informed that not only would he not be removed, but if other raids were coming, or in any case, he would be the very last living man to be moved from his bed." This, our contemporary avers, is given on the authority of a great hospital official who was at Etaples.

If we didn't require these gentle sucking doves to help leaven down the native population of London and such favourite fortified seaside resorts as Margate, Ramsgate &c., one would be inclined to suggest that the whole gamut of Hun officers might well be "interned" in batches and spread over the entire range of Red Cross hospitals within 100 miles or so of the fighting line. Even so, we're not sure that under present tactics they should not be spared for this highly honourable position.

A DELIGHTFUL definition of the Pacifist-at-any-price cum Conchy cancer, was given voice to the other day by Major George Haven Putnam, the American publisher and publicist and an American Civil War man, when speaking at a City Livery Club function. During the American war, as now, Major Putnam said, there were groups of people who, seeing only to the ends of their noses, saw the immediate horrors and sacrifices of war and could not realise the higher

purposes which made the war essential. It was the task of Lincoln not only to guide the military operations at the front, but to keep up the spirits of the citizens in the rear, and to keep down the fools when they were interfering. The duty of keeping down fools—short-haired women and long haired men—fell upon every executive in war time. Such people brought about peace without understanding what the menace to peace meant. Peace made without justice could not be maintained and was not worth while maintaining. The world to-day needed a peace which should not be a preparation for further war, and the only way to declare such peace was to remove the cause that made for war. Peace must be secured at any price and the price of peace was war.

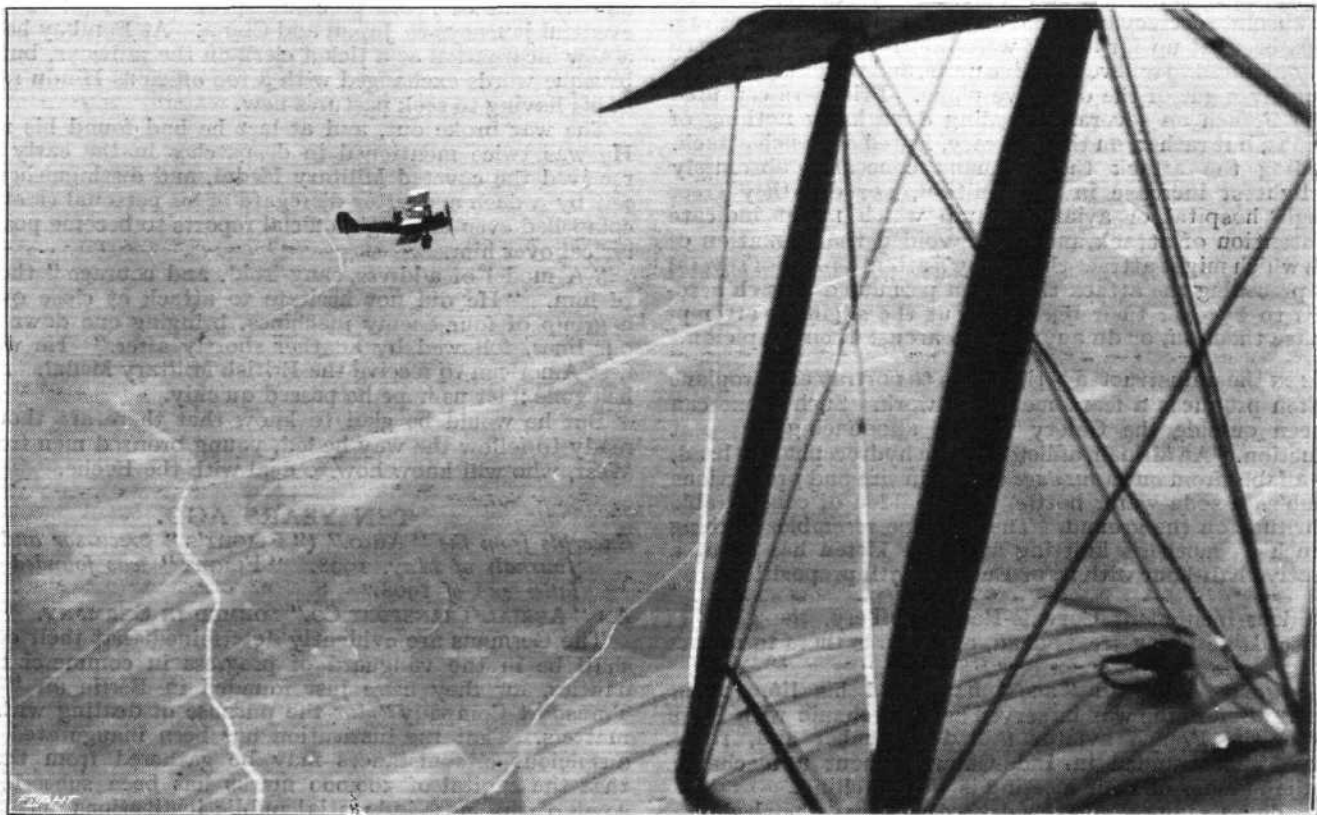
WHAT a wallowing in inefficiency that Rip van Winkle of railwayism, the S.E. and C.D. must be glorying in just now over the slowing down of all passenger trains and side-tracking of season ticket holders under the combination of Dora and the Board of Trade powers recently exercised. Not unnaturally the whole of the "railwaymen" of the system are bitten badly with the complaint, and "says things according." Judging by an announcement in the daily press last week, it might be useful to let loose a few missionaries amongst these benighted folk to explain to them that there is a war on, and that women are Waacs and women are Wrens and women are all sorts of other impossibilities. And that right well have they proved themselves. Therefore it is about time even the S.E. and C. slumberers awoke and brushed a few cobwebs from around their brains. Possibly then in a year or two, one might hope to see the following resolution, as already referred to and published in the press, rescinded:

South-Eastern and Chatham railwaymen have passed a resolution "emphatically protesting against the proposed introduction of women to work passenger trains," and pledging themselves to do all in their power to prevent it, in the interests of public safety, the women's safety, and because such work is entirely unsuited to women.

Perhaps the real trouble is that it is feared the women might want to try and work the line efficiently, and thus upset the vested interests of the Rip-van-Winklers.

"THE CLUBMAN" writes in the *Pall Mall Gazette*:-

"A glaring instance of departmental carelessness—one might use a much stronger word—in connection with Army contracts has come under my notice. I am informed, on most reliable authority, that a certain contractor is paid ninepence for a small fitting required in aeroplanes, while, for identically the same article, another contractor is paid no



ON THE BRITISH WESTERN FRONT IN FRANCE.—Our aeroplanes, on observation bent, over the German lines.

British Official.



*British Official.*  
**On the British Western Front in France.—C.O., with pilot and observer, referring to the photos. and maps prior to setting out for the German lines.**

less than fifteen shillings. As the article in question is ordered not by the dozen or by the gross, but by the thousand, the second contractor must be making a very handsome profit out of it. His contract, I hear, has been running for months, and though the attention of the higher authorities has been called to the matter, the contract remains uncanceled and unamended."

Can such things be, or "is visions about?"

*Apropos* the "caught napping" suggestions when the last German attack started, is it a case of the simple Hun or the simple Allies? Mr. Henry Wood, special correspondent of the United Press of America with the French Armies, puts the case thus:—

"The German efforts to surround Monday's attack with the most absolute secrecy exceeded anything in previous warfare. Troops brought up for attack were informed that they were merely required to relieve first-line units, and were only advised on Sunday night of the offensive plans. Prisoners captured by the French on several preceding days knew nothing of the plans, but rather, on the contrary, feared a French attack. Preceding the attack the Germans concealed absolutely the slightest increase in ammunition, nor did they erect a single hospital or aviation camp which might indicate the intention of attack, and even avoided the formation of paths which might attract the enemy's attention. For several days preceding the attack they even permitted French aeroplanes to fly over their lines without the slightest attempt to chase them off, or do anything to arouse their suspicion."

When the uninstructed artist seeks to portray an aeroplane he often produces a fearsome bit of work. Such a one can be seen outside the Gaiety theatre announcing a recent production. An airman, afflicted with a hydrocephalous head, leers affably from out a fuselage (which in size and proportions resembles a soda water bottle) at a maiden of considerable pulchritude on the ground. The machine resembles nothing so much as mother's knitting after the kitten has spent a recreative half-hour with it, or Euclid's 47th proposition.

So Sous-Lieutenant Gervais-Raoul Lufbery, the glory of the Escadrille Lafayette, is dead, and who is there to replace him?

The great American "ace" had lived his life to the fullest. Before the war he served as a mechanic with Marc Pourpe, the French aviator (killed December 2nd, 1914). Pourpe was stranded in Indo-China without a mechanic, and the manner of their meeting is worth telling.

One day a rangy youngster drifted round to the shed, and asked Pourpe, "if he could use him."

"How do I know?" said the crack pilot. "Do you know anything about machines?"

"Not a bit," said the optimist, "nor motors either, but try me and see what I can do."

In a week the future star turn of the famous American squadron was abreast of his work.

His early days give an indication of the quality of the man. He left his home in Connecticut at the mature age of fifteen, visited France, Algeria, Tunis and Egypt, when the wanderlust impelled him to go to Constantinople. There he found himself penniless, so worked as a waiter in a cheap restaurant.

He might have been inspired by Kipling's lines:—

"For to be old this world, so wide,  
It never done no good to me,  
But I can't drop it, if I tried."

He passed through the Balkan States, and flitting through Hamburg turned up next in South America. For a brief period he went back to his old home, just missing seeing his father, a fanatical philatelist, who had set off a day or so before on the trail of some precious speck of paper! Followed eventful journeys to Japan and China. At Bombay he found a new incarnation as a ticket clerk on the railways, but a few brusque words exchanged with a too officious Hindu resulted in his having to seek pastures new.

The war broke out, and at last he had found his métier. He was twice mentioned in despatches in the early years, received the coveted Military Medal, and distinguished himself by a dash and utter disregard of his personal safety that compelled even the frigid official reports to become positively lyrical over him.

"A model of address, sang-froid, and courage" they said of him. "He did not hesitate to attack at close quarters a group of four enemy machines, bringing one down inside our lines, followed by another shortly after." He was the first American to receive the British Military Medal. And he has gone: let us hope he passed quickly.

But he would be glad to know that there are thousands ready to follow the way he led, young bronzed men from the West, who will know how to deal with the Boche.

#### TEN YEARS AGO.

Excerpts from the "Auto." ("FLIGHT's" precursor and sister journal) of May, 1908. "FLIGHT" was founded at the latter end of 1908.

AN "AERIAL TRANSPORT CO." FORMED IN GERMANY.

The Germans are evidently determined that their country shall be in the vanguard of progress in commercial aeronautics, for they have just founded in Berlin an "Aerial Transport Company" for the purpose of dealing with such matters. That the institution has been inaugurated under auspicious circumstances may be gathered from the fact that the capital of 500,000 marks has been subscribed by some of the most influential public institutions and private individuals in the land; among the former being the German National Bank and the German Bank of Commerce, and among the latter being Frederick Krupp, Commander von Frankenberg, Privy Councillor Gans, Captains Klemm and von Kehler, Herr Mumm, of Rheims, and Herr Bleichroder.





# PERSONALS

## Casualties.

Second Lieutenant W. H. D. KNIGHT, R.A.F., who was killed in action on May 2nd, in his 19th year, was the eldest son of W. E. D. Knight, Limura, B.E.A., and grandson of W. Duncan Knight, of Rapkyns, Horsham.

News has now been received from Germany that Second Lieutenant W. F. G. MARCH, R.F.C., elder son of Mr. and Mrs. W. March, Kimberley, Westgate-on-Sea, reported missing on October 24th, 1917, was killed in an aerial fight on that day and was buried at Staden. Lieutenant March was born in 1897 and educated at Woodford House School, Birchington, and Weymouth College, Weymouth. He gained a scholarship for Durham University, and was studying there for Holy Orders. He was accepted for a pilot in October, 1916, and commenced the cadet training in February, 1917, and got his wings in July. Although offered a post in England as instructor he declined it, holding that a man who had been overseas should have such jobs. He went to France as a fighting scout pilot on October 6th, and was killed on the 24th while on an offensive patrol over the enemy lines.

Brigadier-General DUNCAN SAYRE MACINNES, Royal Engineers (killed on May 23rd), was born in 1870, and was the son of the late Donald MacInnes, of Hamilton, Canada, a member of the Senate. He entered the Army in 1890, and served with the Ashanti Expedition of 1895-6, for which he received honourable mention and the Star. He had a great deal of Staff service in the South African War of 1899-1902. He was in the defence of Kimberley, and was mentioned in despatches in 1900 and again in 1902, and for his services received the D.S.O., the Queen's medal with three clasps, and the King's medal with two clasps. Having graduated at the Staff College, Camberley, he was appointed a General Staff officer in the Department of the Director of Military Training at the War Office, and was also one of the War Office members of the Royal Engineer Committee. Subsequently he was appointed a member of the Directing Staff of the Staff College, an appointment he was holding when the present war broke out. He had seen much service in France in the present campaign, and for some time held an important appointment in connection with the Royal Flying Corps, in which he did most valuable work. General MacInnes, who married in 1902 the daughter of Mr. F. Wolferstan Thomas, leaves a widow, one son, and one daughter.

Lieutenant EDWARD PERCIVAL MORGAN, R.A.F., who died on May 23rd of wounds received the same day, was the son of Mr. E. Strachan Morgan, of 56, Boundary Road, N.W., formerly of Fiesole. He was educated at Bedale School and Wye Agricultural College, on leaving which he emigrated to Canada. He was settled there at the outbreak of the war, and, as soon as he was able to release himself from his engagements, he enlisted as private in the Canadian Infantry. Subsequently he was transferred to the British Army and got a commission in the R.F.C. He was sent to the front last month. His only brother, 2nd Lieut. H. T. Morgan, M.G.C., was taken prisoner on March 21st., and is now in Germany.

Lieutenant CHARLES DOUGLAS WELLS, M.C., R.A.F., who was killed in action on May 16th, aged 21, was the only son of Mr. and Mrs. C. H. Wells, of The Manor House, Hempstead, near Stalham. He was educated at Banham Grammar School, and later at Gresham School, Holt, where he obtained his colours for cricket and football, was captain of his house, and a corporal in the school O.T.C. He obtained a commission in the King's Own Royal Lancaster Regiment in October, 1914, and went out to France in July, 1915. He served at Ypres, and took part in all the principal battles on the Somme, and later was present at the taking of Messines Ridge. He was mentioned in despatches in 1916, and was awarded the Military Cross at the end of 1917 for conspicuous gallantry in action and devotion to duty. Lieutenant Wells transferred to the R.F.C. in October, 1917, and went out to the front as an observer last January.

Lieutenant CHARLES FULLERTON, R.A.F., who was killed while flying on May 29th, aged 22, was the second son of Mr. and Mrs. Fullerton, Noblethorpe, Barnsley.

Lieutenant-Colonel DOUGLAS HYDE THOMSON, who was killed while flying in Kent on May 21st, was the second

son of Mr. and Mrs. R. D. Thomson, of The Pool House, Groby, Leicestershire. He was born in 1891, and educated at Mr. Lea's school, Higham-on-the-Hill, and Clifton College, whence he passed into the Royal Navy. His first ship as midshipman was H.M.S. Dreadnought, then carrying out her first commission. As sub-lieutenant he attained "firsts" in all his courses, and, after a brief period of sea time, joined H.M.S. Vernon, and qualified as a lieutenant (T). He joined the Royal Naval Air Service during 1914, and was associated with the early experimental work. During the war he spent brief periods at Dunkirk and in the Mediterranean, and the rest of the time was employed at the Admiralty and Air Ministry on important work. Latterly his energy was devoted chiefly to wireless telegraphy and electrical matters, in which branch the loss of his services will be greatly felt. He recently became one of the service members of the Civil Aerial Transport Committee. He was to have been married on June 22nd to Eileen, the younger daughter of Mr. and Mrs. Basil Sharp, of 4, Hyde Park Terrace, W.

Major P. J. VAUGHAN LAVARACK, M.C., R.A.F., who was killed in a flying accident on May 15th, was the fourth son of the late Hamlet Lavarack and Mrs. Lavarack, of 15, Wycombe Gardens, Golders Green, and husband of Lily Lavarack (née Gibson).

Capt. W. CRAWSHAY LODER-SYMONDS, Wiltshire Regt., attached R.A.F., who escaped from Germany about 10 weeks ago, having been a prisoner of war since August, 1914, was killed in a flying accident on May 30th. He was born in 1886, and was the fourth and second surviving son of Capt. and Mrs. F. C. Loder-Symonds, of Hinton Manor, Berks, four of whose five sons have now given their lives for their country in this war. He received his commission in the Wiltshire Regt. from the Militia in May, 1908, and was promoted Captain in October, 1914. He was taken prisoner on August 24th, 1914, after being wounded in the thigh at Le Cateau, and was one of the first officers to be eligible for internment in Holland. He declined to give his parole and was sent to Schweidnitz, in Silesia. On his return to this country he was received by the King at Buckingham Palace. Capt. Loder-Symonds married, on April 6th last, Melloney Mary, elder daughter of Capt. and Mrs. W. H. Waring, of Beenharn House, Berkshire.

Capt. JAMES HARRY MEDCALF, D.C.M., M.C., Border Regt., attached R.A.F., who was killed instantaneously as a result of an accident whilst flying on May 25th, was the second son of Mr. W. Medcalf, of Denbury, Newton Abbot. He joined the Army in August, 1914, as a despatch rider, and was in France at the end of that month and saw continual service. He obtained his commission early in 1915, and he was attached to the Border Regiment. He won his D.C.M. at Festubert. Transferring to the R.F.C., he obtained his "wings" very quickly, and was flying from 1916 onwards. Seriously wounded on February 5th of this year, he had only just rejoined his squadron as an instructor. Capt. Medcalf was 23 years of age, and had the Mons Star among his decorations.

Lieut. PERCY CHARLES MOYNIHAN, R.A.F., who was accidentally killed while flying in Warwickshire on May 22nd, was the youngest son of Mr. and Mrs. G. W. Moynihan.

Lieutenant C. K. SCOTT, R.F.C., who died on June 1st as the result of an accident whilst flying at Farnborough, was the elder son of Mr. and Mrs. H. K. Scott, of 42, Cheyne Court, London, S.W., and formerly of Twickenham and Seawaren, N.J.

Lieutenant ARTHUR BURRELL THORNE ("PAT"), R.F.A., attached R.A.F., who was killed on May 8th as the result of a collision in the air while engaged in instructing a class in flying, was born in 1895, and educated at Northaw Place, Hurst Court, Ore, and Haileybury College (Melville). At Haileybury he was in the cricket eleven in 1912 and 1913. In 1914 he came from Canada, obtained a commission in October in the R.F.A., and went to France in February, 1915. In May, 1916, he became attached to the R.F.C., and was flying in France as observer and pilot for eleven months before he met with an accident that made him lame for life, and kept him in hospital and convalescent home for seven months. Although at the time of his fatal accident he was unable to



walk without crutches his capacity as a pilot was unimpaired, and he had a few days previously been passed again for general service. On his body was found an application to be sent to the front again on the first possible opportunity; he had intended to hand it that evening to his commanding officer.

Flight Sub-Lieut. MERVYN HENRY WOLLASTON TREND, R.A.F., who died on Whit Sunday, May 19th, of "injuries received in the execution of his duties," was the youngest son of the Rev. G. J. W. and Mrs. Trendell, the Vicarage, Sheringham, Norfolk. He was aged 18 years.

Lieut. PATRICK BRYAN SANDFORD WOOD, R.A.F., who was accidentally killed on May 24th, aged 19, was the elder son of Dr. and Mrs. Charles Wood, Caius College, Cambridge.

## Married.

Lieut. S. HOWARD ELLIS, Northumberland Fus. and R.A.F., eldest son of Mr. Howard Ellis, of Auckland, New Zealand, was married on June 1st at the Chapel Royal, Savoy, to Miss MARY MACKENZIE, daughter of Sir Thomas Mackenzie, High commissioner for New Zealand, and Lady Mackenzie. Lieut. R. F. Ellis, N.Z.E., was best man to his brother, and the Rev. Hugh Chapman officiated.

Capt. J. LAURENCE HEAD, R.A.F., was married on May 28th by special licence to PEGGY, youngest daughter of the late General SEAFIELD GRANT, Craigellachie, Burley, New Forest.

Mr. F. GRAHAM MCINTOSH, 60th Rifles and R.A.F., only son of Mr. J. Grant McIntosh and of Mrs. McIntosh, of Port of Spain, Trinidad, B.W.I., was married on June 1st at St. Mark's Church, Friday Bridge, Cambs., to Miss MARGARET MARION GRACE WEST, daughter of Mr. W. W. West, and of Mrs. West, of Needham Hall, Cambs.

Capt. J. C. PERKINS, R.A.F., only son of Mr. and Mrs. T. A. Perkins, of Heaton, Bradford, was married on May 29th at All Saints' Church, Oakleigh Park, W., to FRANCES MARION, eldest daughter of Mr. and Mrs. A. C. FROST, Wollaston, Oakleigh Park, N.

Lieut. HARRY BOTWRIGHT ROGERS, R.A.F., eldest son of Henry Thomas Rogers, of Tufnell Park, was married on May 25th, at St. Barnabas's Church, Bristol, to FRANCES

MAY BRADFORD, eldest daughter of the late Capt. Albert Sidney Bradford, R.N., and of Mrs. Bradford, of Bristol.

Lieut. ARTHUR DUNCAN STUBBS, R.A.F., eldest son of Mr. and Mrs. Stubbs, of Leeds and Southampton, was married on June 1st, at St. Barnabas' Church, Southampton, to VIOLA GWENDOLINE, youngest daughter of Mr. and Mrs. G. S. KEMP, of Upper Cedar Road.

## To be Married.

The marriage arranged between Capt. F. S. H. BREMNER, R.A.F., and VIVYEN, daughter of Mr. and Mrs. Archibald HURD, will take place, leave permitting, on June 14th, at 2 o'clock, at All Saints' Church, Margaret Street.

The engagement is announced between Col. EDWARD FEATHERSTONE BRIGGS, D.S.O., R.A.F. (late Wing Commander, R.N.), second son of the late William Briggs, of Clifton, Bristol, and VIOLET, only daughter of Mrs. Ernest LONG, of York, and grandchild of the late Edwin Long, R.A.

The engagement is announced between Flight-Lieut. S. PORTER-COLT, R.N., eldest son of Mr. Colt, California, and KATHLEEN, widow of the late Major E. GARDINER, R.E., and youngest daughter of Charles Adams, South Africa.

## Items.

Congratulations to Mr. ARCHIBALD D. DAWNAY, who is included in the Birthday Honours. Mr. Dawnay, upon whom the honour of knighthood has been conferred, is head of Messrs. Archibald D. Dawnay and Co., Ltd. He has been Mayor of Wandsworth for ten years, and is honoured for local and patriotic services in the extension of allotments, the training of men, and the chairmanship of war funds.

Brig.-Gen. Lord MONTAGU OF BEAULIEU has returned to England.

On Saturday at Flushing the funeral of Flight Sub-Lieut. ERIC J. E. BUCKLEY took place with military honours. Lieut. Buckley's body was washed up on the coast of Holland last November, and had been temporarily interred where it was found.

The relatives of Capt. C. C. CLARK, R.F.A., R.A.F., reported missing, have received a telegram stating that he is a wounded prisoner.



## Manufacture of Small Tools.

THE Minister of Munitions has issued a general licence dated May 31st (under the recent Small Tools Order) which enables any person to manufacture for his own use, but for no other purpose, any of the small tools referred to in the Order. Applications for licences to manufacture small tools for other purpose should be made to the Controller of Machine Tools, Charing Cross Buildings, London, W.C.2, and marked "Small Tools."

## The Defence of London.

UNVEILING at the Treloar Cripples' Hospital and College at Alton, Hants, a tablet recording the establishment of a cot dedicated as a memorial to the children killed in a London borough on the enemy air raid of June 13th, 1917, General Ashmore said the effect of the raids from the point of view of military gain had always been small, and it tended to become smaller. At first the raids produced a certain feeling of dismay; but after nearly a year's bombing, London was far better able to bear up under the inflictions. In the case of the night raids there at first appeared to be no answer. But necessity brought hard thinking, and always more and more was an effective answer found. The last raid showed a great advance in our methods. Of some thirty odd machines that attempted the attack seven were totally destroyed. "We shall—I am sure of it—do even better than that," continued General Ashmore. "We are experimenting and improving every day. Scientific—one might say, ultra-scientific—discoveries are employed. Training and material are being improved, and the right skill of our brave pilots is increasing. I cannot promise that odd machines will not break through, but I confidently expect that we shall make raids on London too expensive for the Huns to continue."

## The Air Fighting in May.

In its excellent summary of the air fighting for the month of May, the *Times* points out that the number of aeroplanes reported down constituted a record for any month since the war began. Correcting the figures up to the actual end of the month the aggregate was 1,248—exceeding by 186 the figure for March—the previous record. The losses on the various fronts were as follows:—Western, 1,041;

Italian, 136; Macedonian, 26; Palestine, 8; Mesopotamia, 3. The details of the total on the Western front were:—German machines which fell to the British, 520; to the French, 273; to the Italians, 16; to the Americans, 14; and to the Belgians, 5. Allied aeroplanes claimed by the Germans, 258. Of the enemy machines accounted for by the British, 400 were destroyed in combats, and 101 driven down out of control; 15, of which seven fell in our lines, were brought down by gunfire, and four others were forced to land behind our lines. In addition, eleven German observation balloons were destroyed. The number of British aeroplanes reported as missing in the same period was 128, inclusive of those which failed to return from raids into Germany. In March, with which the May return most nearly compares, 155 of our machines were reported as missing, and the total number of German machines accounted for was 590 and 15 balloons.

Including two of the Gothas which raided the Paris area, French airmen and gunners placed to their credit 273 German aeroplanes and 13 balloons. Of the aeroplanes, 139 were destroyed in fighting, 19 fell to the gunners, and 129 were driven down seriously damaged. The French total compares with 150 German machines and eight balloons in March.

The German figure of 258 Allied machines is 37 more than was claimed in the daily reports of German Main Headquarters in March, and 16 captive balloons are taken credit for, as against 17.

British airmen on the Italian front maintained their fine record of ascendancy over the Austrian Air Service. They destroyed 48 enemy machines and two balloons, with a loss to themselves of only two aeroplanes. They have now destroyed 157 Austrian aeroplanes since they went to Italy towards the end of November, and their total losses for the same period are 15 machines. In addition to the 48, Italian airmen accounted for 84 of the enemy, who claimed, in the same period, to have destroyed four Allied aeroplanes.

In Macedonia, 18 enemy machines were destroyed and eight Allied aeroplanes were reported to have met the same fate. In Palestine, the corresponding figures were three and five, and in Mesopotamia one and two. On the last-named front, three damaged enemy machines were captured by the British.





# The British Air Service

"PER ARDUA AD ASTRA"



## The Royal Air Force.

London Gazette, May 28th.

The following temporary appointments are made at the Air Ministry:—  
*Staff Officers, 2nd Class.*—And to be Temp. Majors, while so employed if not already holding that rank:—Capt. (Temp. Maj.) C. A. J. Butter, 2nd Lieut. A. R. Fulton; April 1st.

*Staff Officer, 3rd Class.*—Lieut. (Temp. Capt.) H. O'N. de Segrave, and to retain his temp. rank, vice Lieut. (Temp. Capt.) S. T. Ravenscroft; May 15th.

The following temporary appointments are made:—  
*Staff Officers, 2nd Class.*—Maj. A. R. Martin; April 24th. Capt. (Temp. Maj.) C. R. Andrews; May 13th. Lieut. (Temp. Maj.) H. P. Maybury, and to retain his temp. rank while so employed; May 19th.

*Staff Officers, 3rd Class.*—Lieut. H. J. G. Newman, and to be Temp. Capt. while so employed; May 3rd. R. B. Longridge (Lieut., 16th Lrs., S.R.), and is granted a temp. comm. as Lieut. and to be Temp. Capt. while so employed May 10th.

### Flying Branch.

Lieutenants to be Temp. Majors while employed as Majors (Flying):—(Temp. Capt.) L. H. Peter, M.C.; April 30th. (Temp. Capt.) I. C. Little; May 17th.

Lieutenants to be Temp. Capts. while employed as Capts. (Flying):—F. A. Ayrton; April 1st. M. L. Doyle; April 24th. A. B. Fairclough; May 4th. M. G. Baskerville; May 7th. H. G. W. Debenham; May 8th. J. M. Mason, D.S.C.; May 9th. F. H. Davies; May 12th. (Hon. Capt.) G. K. Cooper, N. L. Garstin; May 14th. (Hon. Capt.) E. Pierce; May 15th. T. Durrant; May 16th. (Hon. Capt.) H. V. Drew; May 17th. H. Dear, to be 2nd Lieut. (from 2nd Lieut., Tech.); April 8th.

2nd Lieuts. (on prob.) to be 2nd Lieuts. (A. and S.):—A. D. Hegan, H. Russell, C. T. Skipper, J. Stephens, J. C. Deremo; April 1st. H. Woodcock, T. McScott, A. Kendall; April 2nd. G. Swannell, C. J. Saunders, D. G. Paterson, F. E. Welford, J. S. Wilson, F. L. Hill, H. L. Tamplin, F. T. Heron; April 3rd. J. D. Ford, T. H. Robinson; April 4th. D. P. Pogson, A. W. R. Evans, L. C. Story; April 5th. G. L. Rutherford, W. E. Angell; April 6th. R. H. O. Tubbs, W. Oram, J. F. S. Percival, R. A. Arnott, H. C. Turner, A. G. M. Strowger, C. H. Flinn; April 7th. E. C. Hill-Clarke, L. W. D. Peacock, J. C. Langford, A. W. Clark, H. L. Barradell, T. H. Forrest, W. N. L. Cope, C. Greaves, H. W. Heslop, W. J. Knoll, H. B. Harmsworth, H. K. Goode, T. Conlan, R. C. Creamer, W. Ginger, Geoffrey Hall, R. C. Knowles, A. O. P. Heron, V. G. H. Phillips, H. T. Taylor, A. V. Trimble, C. H. Dickens, L. H. Stiles, W. Stephenson; April 8th. H. Warburton, F. Ollenbottle, J. R. King, A. E. Moir, A. R. Strachan, J. Webster, C. A. C. Fullerton, J. M. Wilson, F. M. Ruggles; April 9th. A. M. Stahl; April 10th. H. S. Sandford; April 11th. F. Abrahams, S. C. Gilbert, W. J. Bedworth, J. Howard, W. L. Murray, W. J. Salmon, S. S. Bastford, W. H. Jordan, T. H. Rogers, H. H. Ross, J. W. Gibson, C. H. Sawyer, F. Shaw, R. G. Bradbury, F. C. Butler, E. O. Humphries, S. McG. Brown, F. B. Stark; April 12th. C. H. S. Pain, P. Chauncy; April 13th. J. R. Watkins; April 14th. P. A. Cox, A. L. L. Carroll; April 15th. F. H. A. Weale; April 20th. D. B. Sinclair; April 21st. I. L. R. Large, A. W. Buchan, A. W. M. Bryant; April 22nd. J. P. Cross, R. N. Gosling, H. E. Minton, A. McL. Mooney, A. E. Gardiner, D. H. Prosser; April 23rd. H. W. Matthews, F. Clayton, F. J. Whitelaw, R. P. Whyte, H. M. C. Drummond-Wolff, P. R. Moore, B. Green, L. Smith; April 24th. A. W. Sawyer, J. T. D. Margrave, J. A. Matthews, J. A. C. Randall, G. V. L. Taylor, C. A. McIntosh, E. F. Adams, J. R. A. Farfan, G. Ballance, M. P. Fraser, S. Engel, E. H. Lyon-Hall, C. Waine, I. C. Slater, G. Richardson, G. H. Glasspole, B. H. Stratton, D. F. Grant, H. C. Thomas; April 25th. W. Parke, H. C. Dakin, A. E. Brown, A. S. J. Davies, T. J. Lethbridge, F. P. Whittaker, B. Critchley, G. A. Franklin, J. C. Paterson, T. Robson, H. Hill, J. B. Spence, A. E. Connolly, P. Bertrand, H. Vost, W. J. Cairns, J. N. Gatecliff, A. Rogerson, L. P. Vigurs, H. D. Teetzel, R. M. Hillman, B. Fisher, R. C. Hirst, R. A. Pearce; April 26th. L. Lovatt, C. A. L. Stanfield, F. Parker, T. H. W. Pearce, V. U. T. Watson, N. Weatherley, J. F. Robb, L. B. Raymond, W. T. Martin, T. D. Hazen, J. H. Carthew, E. J. Lanchbury, B. C. McDougall, W. J. K. Graham, W. S. Campbell; April 27th. A. Shepherd, K. J. Yeomans, C. N. C. Dickson, R. K. Douglas, A. K. Whiteman; April 27th. J. J. Borrowman, S. J. Manser, J. J. B. Rutter, J. H. Waddington; April 28th. R. C. Rogers, J. B. Isaacs, J. Spencer Hall, C. Houlgrave, J. A. McGill, M. L. Green, April 29th. L. S. Court, F. L. Shield, E. L. Milborrow; April 29th.

The following are granted temp. commss. as 2nd Lieuts. (A. and S.):—W. B. Clarke, M.C. (2nd Lieut., R.G.A.), H. Laycock (Temp. 2nd Lieut., attd. E. Lan. R.); April 1st. E. M. C. Shipp (Lieut., R.W. Fus., T.F.), and to be Hon. Lieut.; April 3rd. H. W. Taylor, M.C. (Lieut., R.F.A., S.R.), and to be Hon. Lieut.; April 4th. A. B. Clark, M.C. (Lieut., attd. R. Hdrs., S.R.), and to be Hon. Lieut.; H. B. Wood (2nd Lieut., R.F.A.); April 5th. H. Buie (Temp. 2nd Lieut., attd. S. Lan. R.), H. A. Young (2nd Lieut., R.F.A., S.R.); April 7th. J. R. Stacey (Lieut., W. Ont. R., C.E.F.), and to be Hon. Lieut.; B. B. Sinclair (Lt., R.F.A., S.R.), and to be Hon. Lt.; G. A. Gowder (2nd Lt., attd. R. Berks. R.); April 8th. R. L. Tilley (Lieut., R.W. Surr. R.), and to be Hon. Lieut.; April 9th. J. E. J. Barstow (Lieut., N. Som. Yeo., T.F.), and to be Hon. Lieut.; J. A. Ditton (Lieut., Quebec R., C.E.F.), and to be Hon. Lieut.; S. Fleming (Lieut., R. Sc. Fus., T.F.), and to be Hon. Lieut.; April 12th. E. R. C. Hobson (Temp. Capt., Br. W.I.R.), and to be Hon. Capt.; April 13th. J. E. Parke (Temp. 2nd Lieut., attd. R. Fus.), G. L. Pilkington (Capt., Lanc. Hrs. Yeo., T.F.), and to be Hon. Capt.; W. J. Dalziel (Lieut., Sask. Regt., C.E.F.), and to be Hon. Lieut.; April 22nd. W. J. McMahon (Lieut., C. Ont. R., C.E.F.) and to be Hon. Lieut.; E. N. Copping (Lieut., Sask. Regt., C.E.F.), and to be Hon. Lieut.; April 23rd. R. E. Shields (Lieut., C. Ont. R., C.E.F.), and to be Hon. Lieut.; R. O. Campney (Lieut., C. Ont. R., C.E.F.), and to be Hon. Lieut.; C. C. Hirst (Lieut., Lond. R., T.F.), and to be Hon. Lieut.; J. E. Palmer, D.C.M. (Lieut., Can. M.G.C.), and to be Hon. Lieut.; April 24th. J. McFarlane, M.C. (Temp. Capt., attd. R. Fus.), and to be Hon. Capt.; L. E. Willmott (Lieut., C. Ont. R., C.E.F.), and to be Hon. Lieut.; J. Whitford (Lieut., Manitoba R., C.E.F.), and to be Hon. Lieut.; R. W. Ashworth (2nd Lieut., Hamps. R., T.F.), A. J. Hunter (2nd Lieut., Middx. R.), S. W. Orr (Lieut., C. Ont. Regt., C.E.); and to be Hon. Lieut.; April 25th. J. H. Don (Capt., N.Z. Dental Corps), and to be Hon. Capt.; A. G. Inglis (Capt., A.S.C., T.F.), and to be Hon. Capt.; Hon. R. W. Morgan-Grenville (Capt., Rif. Brig., S.R.), and to be Hon. Capt.; J. C. F. Wilkinson, M.C. (Lieut., Lond. R., T.F.), and to be Hon. Lieut.; L. G. Spinney (2nd Lieut., A.S.C.), and to be Hon. Lieut.; April 26th. B. F. L. Yeoman (2nd Lieut., Lond. R., T.F.), G. Wilby (Temp. 2nd Lieut., attd. S. Staff. R.); April 27th. A. Barrington (Temp. 2nd Lieut., attd. E. Surr. R.); April 29th. J. H. Blount (2nd Lieut., Oxf. and Bucks. L.I.); April 30th.

The following cadets are granted temp. commissions as 2nd Lieuts. (Kite Balloon):—T. D. Brotherton, J. W. Brown, H. V. Cox, S. Gaskill, C. R. Jones, P. Lavery, F. E. A. MacDonnell, F. Moulding, V. Williams, G. W. N. Simpson; May 13th. H. A. F. Barker, A. R. Bloxham, B. R. Burns, C. H. Edwards, L. A. Dodge, U. P. Perring, G. H. Pittam, L. L. Vervard; May 20th.

The following cadets are granted temp. commissions as 2nd Lieuts. (Observer Officers):—M. G. Ashby, J. R. Brown, J. M. Calnek, A. Dix, R. Goldman, E. L. Goulder, W. E. Grainger, W. Hagan, H. A. Hamlet, W. D. Hartland, A. Harvey,

E. C. Heyes, R. B. Kennedy, C. T. Marshall, H. Mason, A. C. Pring, L. F. Raby W. Sharples, H. P. Turnbull, W. B. Warneford, C. H. White; April 17th. H. C. Dumbell (Lieut., R.F.A., T.F.) relinquishes his commission on account of ill-health contracted on active service; May 29th.

### Administrative Branch.

C. H. Frazier, M.C. (Qrmr. and Hon. Capt., Manch. R.), is granted a temp. commission as Capt.; March 11th.

P. P. C. Penberthy is granted a temp. commission as Capt.; May 4th. 2nd Lieut. E. Clark resigns his commission to resume his medical studies, and is granted the hon. rank of 2nd Lieut.; May 29th.

2nd Lieuts. resign their commissions:—F. B. Elkins, C. D. Potter, J. M. Schollick, G. G. Stephenson; May 29th.

2nd Lieut. G. F. Atkinson relinquishes his commission; May 29th.

W. M. P. Cutler (2nd Lieut., M.G.C.) relinquishes his commission on account of ill-health; May 29th.

A. J. B. Trower (Temp. 2nd Lieut., attd. R.W. Surr. R.) relinquishes his commission on account of ill-health contracted on active service; May 29th.

### Technical Branch.

To be Temp. Capts. while employed as Capts. (Tech.):—Lieut. (Hon. Capt.) K. R. Paterson; May 7th. Lieut. (Hon. Capt.) G. Fresheville; May 15th.

2nd Lieuts. to be Temp. Lieuts. while employed as Lieuts. (Tech.):—S. H. Child, J. M. Pinkerton, A. W. O'Q. Shire; May 10th. P. R. Garner; May 11th. (Hon. Lieut.) G. Baillie, D. Sinclair; May 13th. V. C. Legg; May 14th.

Lieut. B. D. Bellamy to be Lieut. (Tech.), from Staff Officer, 4th Class; April 25th (substituted for notification in the Gazette of May 3rd).

Second Lieutenants (Administrative) to be 2nd Lieuts. (Tech.):—J. A. Rennie, H. G. Short, R. D. Thompson; May 4th. T. Williams, J. L. Malkin, A. V. Jay, P. H. F. George, L. E. Pool, S. Bishop; May 6th. F. J. Hormau Fisher; May 20th. A. R. Deacon, C. J. Skidmore-Jones; May 29th.

The following are granted temp. commissions as 2nd Lieuts. (Tech.):—E. R. Parsons (Lieut., R.G.A., T.F.), and to be Hon. Lieut.; April 29th. W. Gregory (Temp. 2nd Lieut., attd. Hamps. R.), J. E. Sierra (Temp. Lieut., R.F.A.), and to be Hon. Lieut.; D. Wright (2nd Lieut., R.D.C., T.F.), E. H. Walker, M.C. (Temp. Lieut., R.F.A.), and to be Hon. Lieut.; C. E. Wilkin (Temp. Lieut., R. Fus.), and to be Hon. Lieut.; H. W. Wolverson (Temp. Lieut., Gen. List), and to be Hon. Lieut.; May 4th. H. H. Weller (Temp. 2nd Lieut., Labour Corps), P. Eadie (Lieut., R.E., T.F.), and to be Hon. Lieut.; D. R. J. O'Connor (Lieut., R. W. Surr. R. (T.F.)), and to be Hon. Lieut.; C. Keith-Murray (Temp. Lieut., A.S.C.), and to be Hon. Lieut.; W. F. Peatfield (Temp. Lieut., R.G.A.), and to be Hon. Lieut.; May 6th.

The initials of L. H. Seccombe are as now described, and not as in the Gazette of May 7th.

Capt. G. St. B. S. Watkins relinquishes his commission on account of ill-health and is granted the hon. rank of Capt.; May 29th.

### Medical Branch.

H. C. T. Langdon (Temp. Maj., R.A.M.C.), is granted a temp. commission as Maj., and to be Temp. Lieut.-Colonel while employed as Lieut.-Colonel (Med.); May 1st.

A. H. Cheate is granted a temp. commission as Maj., and to be Temp. Hon. Lieut.-Colonel while holding present appointment as Temp. Hon. Lieut.-Colonel (Med.); May 15th.

F. F. Muecke (Temp. Maj., R.A.M.C.) is granted a temp. commission as Maj., and to be Temp. Lieut.-Colonel while employed as Lieut.-Colonel (Med.); May 2nd.

R. P. Williams (Temp. Capt., R.A.M.C.) is granted a temp. commission as Capt., and to be Temp. Lieut.-Colonel while employed as Lieut.-Colonel (Med.); May 2nd.

H. Pritchard (Temp. Hon. Maj., R.A.M.C.) is granted a temp. commission as Hon. Maj.; May 2nd.

M. W. Flack (Temp. Hon. Maj., R.A.M.C.) is granted a temp. commission as Hon. Maj., and to be Temp. Hon. Lieut.-Colonel while employed as Temp. Hon. Lieut.-Colonel (Med.); May 2nd.

The following are granted temp. commissions as Capts. and to be Temp. Majs. whilst employed as Majs. (Med.):—A. P. Bowdler (Temp. Capt.) R.A.M.C., J. McIntyre (Temp. Capt., R.A.M.C.); May 1st.

Lieut. G. G. Fairbairn to be an Administrative Officer from Observer and to be Temp. Capt. while so employed; April 1st.

Memoranda.—Lieut. (Hon. Capt.) (Capt., R.A.) R. O. Skinner relinquishes his commission on ceasing to be employed; May 7th.

Lieut. (Hon. Capt.) (Capt., I.A.) W. H. L. O'Neill relinquishes his commission on ceasing to be employed; May 16th.

London Gazette, May 31st.

The following temporary appointment is made at the Air Ministry:—  
*Staff Officer, 2nd Class.*—Capt. (Temp. Maj.) H. A. Oxenham, M.C.; May 21st.

### Flying Branch.

Maj. C. H. Butler, D.S.O., D.S.C., to be Temp. Lieut.-Col. while employed as Lieut.-Col. (Flying) (A. and S.); May 8th, seniority April 17th (substituted for notification in Gazette May 21st).

Maj. C. H. Stringer to be Temp. Lieut.-Col. while employed as Lieut.-Col. (Flying) (K.B.); May 21st.

Lieut. (Temp. Capt.) G. M. Thomas to be Temp. Maj. while employed as Maj. (Flying) (Dir.); May 20th.

Lieutenants to be Temp. Capts. while employed as Capts. (Flying):—S. Anderson (A. and S.); May 10th. J. R. Milne (A. and S.); May 11th. H. O. N. de H. Segrave (A. and S.); April 1st. J. S. Chick (A. and S.), G. Fox-Rule (A. and S.), F. C. Ransley (A. and S.), S. T. Ravenscroft (from S.O.); May 15th. (Hon. Capt.) J. A. Glen, D.S.C.; May 16th. W. E. Staton (A. and S.); May 18th. (Hon. Capt.) D. Don (Dir.); (Hon. Capt.) R. Scott Sugden (Dir.); May 20th; J. H. Forman (A. and S.); May 21st.

Lieut. (Hon. Capt.) (Temp. Capt.) C. G. Durham relinquishes the temp. rank of Capt. on resuming duty as Lieut. (Flying); May 9th.

Temp. 2nd Lieuts. (on prob.) to be Temp. 2nd Lieuts. (Flying), A. and S.:—C. F. Kirby; April 6th. L. T. Calhoun; April 20th. E. N. Allott; April 21st. H. Hitchen, W. Lee; April 22nd. S. Jones; April 24th. S. M. Connolly, W. L. Dougar; April 25th. H. Watson, D. Brabury, R. N. Essell; April 26th. S. T. Crowe, J. R. Brown, W. G. Lance, F. D. Smith, J. Pryce-Jones, W. A. Stead; April 27th. D. C. Mangan, L. McL. Lord; April 28th. V. G. Hinds, K. R. Angus; April 29th. H. Marsden, C. E. Trippe, J. H. Mainwaring, N. A. Weir, K. L. Birtwistle, C. W. Hewson, H. R. Frank, R. J. Woods; April 30th. E. P. O'Connor-Glyn, L. W. C. Pearce, W. J. Hale, J. A. Archibald, E. W. Langford, R. J. Searle, W. J. Miller, H. W. Leyland, L. Skeldon, J. Duncanson, E. G. L. Weaver, J. Douglas; May 1st. J. E. Phillips, A. H. Wood, A. N. Hyde, N. Mason, C. W. Arning, C. A. B. Caukwell, F. A. Brock, T. H. A. Vivers, R. Esworth-Heater, V. N. Dickinson, C. N. Barker, W. A. Wilson, E. W. Cockroft, L. V. Dennis, R. T. Ingram, A. B. Campbell, A. S. Sinclair



K. R. Campbell, H. P. Brumell, J. W. Frechette, A. E. N. Ashford, J. G. Renshaw, J. R. Belton, R. I. Jenkinson, E. H. Coote, G. A. Hadley, R. Miller-Tait, S. H. F. Jones, J. H. H. Brunt; May 2nd. P. S. Tennant, C. C. L. Baldwin, C. Cutler, J. V. Dallin, S. F. Wilkin, D. Rodger, J. T. Duckworth, W. L. Field; May 3rd. R. D. Rogers, H. L. Cross, W. G. Blatherwick, C. R. Boyd, C. R. Tolley, J. Appleby, F. W. Douglas, H. Parsons; May 4th. J. B. Dunn, E. H. Attwood; May 5th. F. R. Cooke, W. D. Straight, S. J. Hill, E. L. W. J. Finch, J. Atkinson, A. Vickers, A. C. Weeks, D. H. Sadler; May 6th. M. Thornton, G. F. Williams, E. I. Dallinger, J. W. Birkenshaw, C. J. Willcox, C. Brown; May 7th.

The following are granted temporary commissions as 2nd Lieuts. (Flying), A. and S.:—H. D. Arnott, E. F. Coyle, C. A. Dixon, I. W. Dunbar, F. M. Dunlop, E. I. English, B. C. Fairchild, R. Foley, F. R. Frizelle, A. D. Geiger, D. C. Girardot, J. H. Glen, F. McE. Gorman, C. St. C. Guild, J. W. Hammond, F. Harris, W. B. Henderson, C. J. H. Holms, M. G. Horkins, R. C. Hunter, R. G. H. Hurton, W. A. Isaac, J. F. Jones, W. C. Kinnisten, J. G. G. Layton, J. A. Longley, C. A. McConville, J. G. McGregor, F. L. McGuire, R. J. Mackay-Cantell, S. Markusson, W. A. Marshall, D. B. Menzies, C. M. K. Morrison, R. S. Murray, L. C. Page, J. B. B. Paterson, A. G. Power, F. E. Power, J. E. Price, H. W. Press, W. M. Ritchie, J. F. Roscoe, D. Rose, S. L. Rose, L. W. Sage, W. Schaefer, J. L. Sherwin, J. Skinner, H. MacD. Starke, H. J. Stevenson, R. F. St. Oegger, F. H. Sullivan, W. J. Tansey, L. P. Waits, C. E. Watchorn, N. S. Watt, J. B. Wood, R. S. Wood, O. H. Bertrand, S. J. Beveridge, R. D. Bradley, R. S. S. Chaffe, R. J. Cotterell; April 6th.

A. S. Poynton (Temp. Lieut.) (Technical) to be Temp. 2nd Lieut. (Flying), A. and S., and to be Hon. Lieut.; May 2nd.

The following are granted temp. commissions as 2nd Lieuts. (Flying), A. and S.:—H. E. Fenwick (Temp. 2nd Lieut.), North'd Fus.; April 20th. J. F. Lewis (Temp. Lieut., Manch. R.), and to be Hon. Lieut.; April 22nd. J. H. L. Farfan (Temp. Lieut.), A.S.C., and to be Hon. Lieut.; A. C. S. Buist, M.C. (Temp. Lieut., Gord. Highrs.), and to be Hon. Lieut.; April 26th. J. E. T. Sutcliffe (Lieut., S. Staff. R. (T.F.)), and to be Hon. Lieut.; April 28th. C. C. Coats (Lieut., R. Scots (T.F.)), and to be Hon. Lieut.; April 30th. W. K. McGlashan (2nd Lieut., Gen. List, New Armies); D. M. John (Temp. 2nd Lieut., attd. Devon R.); May 1st.—D. A. McDonald (Lieut., Quebec R., C.E.F.), and to be Hon. Lieut.; J. O. Claxton (Temp. 2nd Lieut., L'pool R.); C. R. McMullin (Temp. 2nd Lieut., Yorks L.I.); R. E. Baty, M.C. (Temp. 2nd Lieut., North'd Fus.); L. N. Robinson (Lieut., R.N.V.R.), and to be Hon. Capt.; H. V. R. Roberts-Taylor (2nd Lieut., Kent Cyclist Bn. (T.F.)); A. K. Boning (Lieut., Norf. R. (T.F.)), and to be Hon. Lieut.; H. W. Hollands (Temp. Lieut., attd. Shrops L.I.), and to be Hon. Lieut.; May 2nd. C. V. A. Bucknall (2nd Lieut., Dns.); May 3rd. G. W. E. Hammer (Lieut., Shrops Yeo. (T.F.)), and to be Hon. Lieut.; S. M. Feurer (Temp. 2nd Lieut., attd. R. Berks R.); May 5th. C. C. Woodall (Temp. 2nd Lieut., attd. Worc. R.); May 6th.

W. A. Gurr is granted a temp. commn. as 2nd Lieut. (K.B.D.); April 10th.

The rank of Lieut. (Hon. Maj.) L. G. S. Reynolds is as now described, and not as stated in the *Gazette* of May 14th.

Lieut. J. A. Wagner relinquishes his commn. on account of ill-health, and is granted the hon. rank of 2nd Lieut.; April 2nd.

Lieut. W. R. A. Campbell relinquishes his commn. on account of ill-health, and is granted the hon. rank of Lieut.; June 1st.

## Administrative Branch.

Lieut. (Temp. Capt.) C. H. Biddulph-Pinchard to be Temp. Maj. while employed as Admin. Maj.; April 20th.

The following are granted temp. commns. as Lieuts. while employed as Admin. Lieuts.:—J. Runciman (Ormr. and Hon. Lieut., Ches. R., T.F.); April 17th. R. W. E. Lord Grimthorpe (Capt., Yorks. Hrs., T.F.), and to be Hon. Capt.; May 16th. P. Dalton (Temp. Lieut., R.E.); May 17th.

H. T. Weston is granted a temp. commn. as 2nd Lieut., and to be Temp. Lieut. while employed as Admin. Lieut.; May 22nd.

The following are granted temp. commns. as 2nd Lieuts.:—G. A. H. Wootton; May 1st. S. G. Ball; May 10th. J. E. G. Henchman, E. Hodgson, A. P. Manners, A. J. Thompson, K. G. Ward; May 24th.

Capt. G. E. Stringer resigns his commn., and is granted the hon. rank of Capt.; June 1st.

2nd Lieut. J. O'Rourke relinquishes his commn. on account of ill-health contracted on active service, and is granted the hon. rank of 2nd Lieut.; June 1st.

Lieut. E. S. Campbell relinquishes his commn. on account of ill-health contracted on active service, and is granted the hon. rank of Lieut.; June 1st.

2nd Lieuts. resign their commns. to resume their medical studies, and are granted the hon. rank of 2nd Lieuts.:—A. G. Dobrashian, W. H. Scott; June 1st.

2nd Lieuts. resign their commissions:—W. Cordner, A. H. Hicks; June 1st.

The notification in the *Gazette* of April 23rd, regarding Lieut. (Hon. Capt.) H. C. Waghorn, is now cancelled.

The initials of P. G. Addie are as now described, and not as stated in the *Gazette* of May 21st.

The surname of 2nd Lieut. F. Davison is as now described, and not as stated in the *Gazette* of May 21st.

## Technical Branch.

Capt. (Temp. Maj.) H. R. Vagg to be Temp. Lieut.-Col. whilst employed as Lieut.-Col. (Tech.); April 28th.

Lieut. (Temp. Capt.) J. H. Dunn to be Temp. Maj. whilst employed as Maj. (Tech.); May 15th.

Maj. J. Hills to be Maj. (Tech.), from S.O.; May 21st.

Lieut. L. P. Timmins to be Temp. Capt. whilst employed as Capt. (Tech.); May 20th.

2nd Lieuts. to be Temp. Lieuts. whilst employed as Lieuts. (Tech.):—R. R. Richards; May 20th. E. F. Cameron, W. G. Horton; May 21st.

T. Stevenson (Temp. Lieut., Gen. List) to be Temp. Lieut. whilst employed as Lieut. (Tech.); May 20th.

Temp. 2nd Lieuts., on prob., R.F.C., Gen. List, to be Temp. 2nd Lieuts. (Tech.):—A. Scott; May 15th. H. M. Drabble; May 16th.

The following are granted temp. commns. as 2nd Lieuts.:—H. G. Reddy (2nd Lieut., Lond. R., T.F.); April 1st. J. K. M. Dodds (Lieut., R.F.A., T.F.), and to be Hon. Lieut.; May 6th. T. J. Boyer (2nd Lieut., S. Gds., S.R.); May 15th.

2nd Lieut. (Hon. Lieut.) J. J. Lynch relinquishes his commn. on account of ill-health contracted on active service, and retains the hon. rank of Lieut.; May 7th.

2nd Lieut. F. B. Sellar relinquishes his commn. on account of ill-health contracted on active service, and is granted the hon. rank of 2nd Lieut.; June 1st.

## Medical Branch.

The following are granted temp. commissions as Lieuts.:—G. M. Mellor; May 15th. L. E. Stamm; May 24th.

The following are granted temp. commissions as Lieuts. (Dental Branch): F. R. McCambley; May 24th. R. Fyson; May 25th.

Memoranda.—The following relinquish their commissions on ceasing to be employed:—C. J. Killeen (Lieut., Worc. R.); April 2nd. R. S. J. Dynes; May 2nd. A. L. Mercer (Lieut., Nova Scotia R., C.M.F.); May 21st.

## Royal Flying Corps (Military Wing).

*London Gazette Supplement, May 28th.*

The following appointments are made:—

*Flight Commander.*—Lieut. F. Workman, M.C., R. Ir. Rif., S.R., from a Flying Officer, and to be Temp. Capt. while so employed; Nov. 26th, 1917.

*Equipment Officers, 1st Class.*—Lieut. R. J. Bennett, S.R., from the 2nd Class, and to be Temp. Capt. while so employed; Feb. 7th.

*3rd Class.*—Lieut. E. A. Rouch, 2nd Army Res. of Off.; July 18th, 1917. Temp. 2nd Lieuts. (on prob.), Gen. List, and to be confirmed in their rank:—J. T. Lawlor; Jan. 4th. M. B. Fitzgerald; March 29th.

*London Gazette Supplement, May 29th.*

The following appointments are made:—

*Flying Officers.*—2nd Lieut. M. W. Piercey; March 27th. Temp. 2nd Lieuts. (on prob.), Gen. List, and to be confirmed in their rank:—R. E. White; Dec. 12th, 1917. A. McAllister; Dec. 19th, 1917. N. T. Trembath; Dec. 25th, 1917. W. A. Hallgren; March 18th. E. C. Slaght, E. A. Gay; March 23rd.

*Equipment Officer, 3rd Class.*—The appointment of 2nd Lieut. W. Mainstone, R. Ir. Fus., notified in the *Gazette* of April 16th, is antedated to Jan. 25th.

## Schools of Instruction.—Schools of Military Aeronautics.

*Assistant Instructor.*—(Graded as Equipment Officer, 2nd Class).—Temp. Lieut. E. V. Pemberton, Gen. List, a Flying Officer (Obs.); Jan. 1st.

*General List.*—Sub-Lieut. H. B. O'Hagan, from R.N.V.R., to be Temp. Lieut. for duty with R.F.C.; March 22nd.

*To be Temporary Second Lieutenants (on prob.).*—C. H. J. Evershed; Sept. 8th, 1917. P. Merrivale; Jan. 28th. Pte. E. Davey, from R.F.C.; Feb. 3rd.

Cpl. A. Cairnie, from R. Sc. Fus. (T.F.); Feb. 13th. W. R. Coventry; Mar. 17th. V. F. Bendrodt; March 18th. W. E. Clemens; March 20th. W. N. A. Roberts; March 21st. F. C. Annett, W. D. Bryan, C. B. Clark, C. S. Clarke, R. J. Clench, G. W. Cormack, H. T. Kempton, R. F. Ralph, T. J. Roberts, P. A. Templeton, H. H. Wilson, G. L. Winterbottom, S. B. Wright; March 30th.

*London Gazette Supplement, May 30th.*

The following appointments are made:—

*Flying Officers.*—Temp. Lieut. H. A. V. Hill, A.S.C., from a Flying Officer (Obs.); Jan. 5th, 1918, with seniority from March 7th, 1916 (substituted for the notification in the *Gazette* of May 6th). 2nd Lieut. (on prob.) F. S. Briggs, S.R.; July 1st, 1917.

The appointment of Temp. 2nd Lieut. F. S. Briggs, M.G. Corps, notified in the *Gazette* of Aug. 25th, 1917, is cancelled.

The appointments of the following Temp. 2nd Lieuts., Gen. List, notified in the *Gazette* of April 30th, are post-dated as follows:—B. R. Redman, to Jan. 5th; W. A. Pomeroy, to Feb. 24th.

*Equipment Officers, 3rd Class.*—Lieut. W. L. Heape, E. Lan. R., and to be sec'd.; Temp. Lieut. H. A. B. Miller, M.G. Corps, and to be trans'd. to R.F.C. Gen. List; Lieut. F. M. Rayment, Yorks L.I., S.R., from M.G. Corps; Feb. 18th.

## Schools of Instruction.—Schools of Aerial Gunnery.

*Chief Instructor.*—Graded as a Sqdn. Comdr.—Lieut. (Temp. Capt.) R. G. Heyn, S.R., from an Instr. (graded as a Flight Comdr.), and to be Temp. Maj. while so employed; March 4th.

*General List.*—The name of Temp. 2nd Lieut. (on prob.) C. W. Binet is as now described, and not W. O. Bennett as in the *Gazette* of Jan. 1st.

*London Gazette Supplement, June 1st.*

*Flight Commander.*—Capt. (Temp. Major) C. M. Crowe, M.C., Spec. Res., reverts from a Sqdn. Comdr., and relinquishes his temp. rank; (Feb. 6th, seniority Oct. 14th, 1915).

The following appointments are made:—

*Special Appointment (graded as a Park Commander).*—Temp. Capt. C. W. M. Ludgate, Gen. List, from an Equipment Officer, 1st Class, and to be Temp. Major while specially employed; (Mar. 31st).

*Equipment Officer, 3rd Class.*—Temp. 2nd Lieut. (on prob.) P. Merrivale, Gen. List, and to be confirmed in his rank; (Jan. 28th).

*London Gazette Supplement, June 3rd.*

The following appointments are made:—

*Flying Officers (Observers).*—Temp. 2nd Lieut. A. S. White, Gen. List, and to be confirmed in his rank (Jan. 26th, with seniority from Oct. 18th, 1917); Temp. 2nd Lieut. J. O. Holliday, R. Muns. Fus., and to be transferred to R.F.C., Gen. List (Mar. 18th, with seniority from Jan. 12th).

*Adjutant.*—Capt. C. A. M. Holloway, R. W. Kent. R.; (Feb. 22nd).

*Equipment Officers, 1st Class.*—Temp. Lieut. W. T. Taylor, Gen. List, from a Balloon Comdr. (graded as a Balloon Officer), and to be Temp. Capt. while so employed; (Mar. 26th).

*2nd Class.*—Temp. 2nd Lieut. G. Adams, Gen. List, from the 3rd Class, and to be Temp. Lieut. while so employed (Feb. 25th).

*General List.*—Temp. Capt. G. F. Clark (Trans. Workers' Bn.), Worc. R., is transferred for duty with R.F.C.; (Mar. 26th).

H. Whittaker to be Temp. 2nd Lieut.; (Dec. 12th, 1917).

G. H. Bond (late 2nd Lieut., Canadian Exped. Force) to be Temp. 2nd Lieut. (on prob.); (Mar. 1st).

*London Gazette Supplement, June 3rd.*

The following appointments are made:—

*Adjutant.*—Capt. C. A. M. Holloway, R. W. Kent. R.; (Feb. 22nd).

*Equipment Officers, 1st Class.*—Temp. Lieut. W. T. Taylor, Gen. List, from a Balloon Comdr. (graded as a Balloon Officer), and to be Temp. Capt. while so employed; (Mar. 26th).

*2nd Class.*—Temp. 2nd Lieut. G. Adams, Gen. List, from the 3rd Class, and to be Temp. Lieut. while so employed (Feb. 25th).

*General List.*—Temp. Capt. G. F. Clark (Trans. Workers' Bn.), Worc. R., is transferred for duty with R.F.C.; (Mar. 26th).

H. Whittaker to be Temp. 2nd Lieut.; (Dec. 12th, 1917).

G. H. Bond (late 2nd Lieut., Canadian Exped. Force) to be Temp. 2nd Lieut. (on prob.); (Mar. 1st).

*London Gazette Supplement, June 3rd.*

The following appointments are made:—

*Adjutant.*—Capt. C. A. M. Holloway, R. W. Kent. R.; (Feb. 22nd).

*Equipment Officers, 1st Class.*—Temp. Lieut. W. T. Taylor, Gen. List, from a Balloon Comdr. (graded as a Balloon Officer), and to be Temp. Capt. while so employed; (Mar. 26th).

*2nd Class.*—Temp. 2nd Lieut. G. Adams, Gen. List, from the 3rd Class, and to be Temp. Lieut. while so employed (Feb. 25th).

*General List.*—Temp. Capt. G. F. Clark (Trans. Workers' Bn.), Worc. R., is transferred for duty with R.F.C.; (Mar. 26th).

H. Whittaker to be Temp. 2nd Lieut.; (Dec. 12th, 1917).

G. H. Bond (late 2nd Lieut., Canadian Exped. Force) to be Temp. 2nd Lieut. (on prob.); (Mar. 1st).

*London Gazette Supplement, May 23rd.*

To be Temp. Hon. Lieuts. while employed as Asst. Inspns., Aeronautical Inspn. Dept.: G. A. S. Atkinson, W. C. Boswell, W. J. C. Speller, F. J. W. Hedgecock, F. J. Lynes, R. H. Harnett, R. G. Green, R. H. Fulford, R. K. Roberts, W. E. Williams, R. G. Sharp, D. McN. Anderson, R. B. Verney, C. L. Sherratt, H. Gaukroger, L. J. Hill, R. A. Pomphrett, H. R. Tidswell, T. Walker, W. Evans, H. G. Foxell, M. P. Holmes, C. F. Woodgate, R. P. Ross, W. Naylor, F. Dawson, H. Petrie, A. H. Fox, G. G. Bradshaw, K. N. Barnes, D. Wilson, E. Quixley, D. P. Muirhead, D. Weir, J. B. Hamilton, F. Read, F. E. Woodward, S. N. S. Mee, A. J. Mackay, D. D. Baird, W. G. Knight; Oct. 1st, 1917. T. Caplen; Dec. 1st, 1917.

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## Women as Aviators.

SPEAKING at a demonstration of women of the Land Army, Q.M.A.A.C., and other women's services, at Sheffield on Monday, Mr. G. H. Roberts, Minister of Labour, said they would be glad and interested to know that later they were going to have women aviators, and he thought they would make very good aviators.

## Another Zeppelin Down.

INFORMATION published by the København is to the effect that a Zeppelin was sighted during the afternoon of June 1st off Nymindégab, on the west coast of Jutland. Suddenly a loud report was heard and the airship fell, plunging nose downwards to the sea. It is thought that it had been shelled by a warship. Nothing was seen of the crew.



# AIRCRAFT WORK AT THE FRONT.

## OFFICIAL INFORMATION.

### British.

*General Headquarters, May 28th.*  
 "On the 27th inst. the weather was generally fine but cloudy, and visibility was not good. However, a full day's work was done by our aeroplanes both in co-operation with the artillery and in photography and bombing. Sixteen tons of bombs were dropped by us in the course of the day on various objectives, including billets between Armentières and Lens, and on the docks at Bruges. Fifteen German machines were destroyed by our airmen and three were driven down out of control. Two of our machines are missing."

"On the night of the 27th-28th inst. heavy bombs were dropped by us in Zeebrugge lock and Bruges docks. A great number of dumps and billets beyond the enemy's lines were also bombed. A total weight of 21 tons of bombs was used in these different attacks. All the aeroplanes engaged in this work returned safely. Hostile night-bombing machines were active over our back areas. A Gotha aeroplane was forced to descend behind our lines and its three occupants were captured."

"On the same night our long-distance bombing machines were very active and dropped between four and five tons of bombs on the chemical works at Mannheim, on Landau railway station, the electric power station at Kreuzwald (near Saarbrücken), on Metz-Sablon railway station, and Courcelles railway station. Some very large explosions were caused. All machines except one returned safely."

*General Headquarters, May 29th.*  
 "On the 28th inst. fine weather enabled our aeroplanes and balloons to accomplish a full day's work. Besides co-operation with the artillery and photographic reconnaissance, our aeroplanes dropped 25 tons of bombs during the day on hostile billets, dumps, railways, and aerodromes behind the enemy's lines on all parts of the British front. Thirteen German machines were destroyed in air fighting, and four others were driven down out of control. Five of our aeroplanes are missing."

"Bombing was continued on the night of the 28th-29th inst., and 5 tons of bombs were dropped by us on various targets, including billets at Armentières and Valenciennes railway station. One of our night-bombing machines failed to return. On the 29th inst. a number of our long-distance day-bombing machines attacked Thionville, and dropped a ton of bombs with good effect on the station and sidings. At the same time other machines bombed the railway and barracks at Metz-Sablon. In spite of hostile attacks from the air and ground, all our machines returned safely."

*General Headquarters, May 30th.*  
 "Low clouds and poor visibility prevented much work being done by our aeroplanes on the 29th inst. until late in the day, when the weather cleared. Five German machines were brought down in air fighting, and one other was driven down out of control. We lost no machines. Five tons of bombs were dropped by us during the day on ammunition dumps and billets in the neighbourhood of Armentières and Bapaume."

"Bombing continued during the night of the 29th-30th inst., and 16 tons of bombs were dropped, without the loss of any of our machines, on railway stations, including those at Valenciennes and Busigny, on towns and roads behind the enemy's lines, and on Bruges docks. In addition to the raids reported on the 29th inst. our machines heavily bombed the railway triangle at Metz-Sablon on the night of the 28th-29th. All our machines except one returned safely."

*General Headquarters, May 31st.*  
 "On the 30th inst. our aeroplanes and balloons were very active, fine weather enabling much work to be done in co-operation with the artillery, as well as reconnaissance and photography. Bombing was carried out vigorously all day, 38 tons of bombs being dropped on different targets, including railways, roads, dumps, and billets at Merville, Armentières, Bapaume, Albert, and Valenciennes. Twenty-eight German machines and two German balloons were destroyed during the day, and six other hostile aeroplanes were driven down out of control. Five of our machines are missing. On the night of the 30th-31st inst., 17 tons of bombs were dropped by us. Bruges docks were again attacked and large fires started. In addition, 4½ tons of bombs were dropped by our long-distance night squadrons on railway stations and sidings, on Metz-Sablon, Thionville, Courcelles, Karthaus (just south of Trèves), and Esch. All our machines returned."

*War Office, May 31st.*  
 "Salonica.—On May 24th a hostile aeroplane was forced to land at Karaorman (near Kavalla), where it was bombed and destroyed. On the 28th another enemy machine was shot down in flames near the Vardar."

*General Headquarters, June 1st.*  
 "On May 31st our aeroplanes and balloons again carried out much successful work. During the morning our long-distance bombing machines crossed the Rhine, and, in spite of strong opposition from enemy aircraft, dropped over a ton of bombs on the station and workshops at Karlsruhe. One of the machines engaged in this raid failed to return. Another group of our aeroplanes dropped a ton of bombs on the railway triangle at Metz-Sablon with good effect and without loss. A further 31 tons of bombs were dropped by us in the course of the day on different targets behind the enemy's lines. Twenty German machines were destroyed in air fighting, and six were driven down out of control. One other hostile machine was shot down by anti-aircraft fire. One of our machines is missing. During the following night 16 tons of bombs were dropped by us, including 6 tons on Bruges docks and on the Zeebrugge-Bruges Canal. In addition, 4 tons of bombs were dropped on the railway junctions and stations at Metz-Sablon, Karthaus, and Thionville. All our night-bombing machines returned safely. One German night-bombing aeroplane was brought down in flames behind our lines."

*General Headquarters, June 2nd.*  
 "On June 1st fine weather enabled our aeroplanes and balloons to carry out much useful observation work. In air fighting, 21 German machines were destroyed and four other hostile machines were driven down out of control. Four of the enemy's observation balloons were also destroyed by our airmen. Four of our machines are missing. In the course of the day we dropped 20 tons of bombs, successful attacks being made on Zeebrugge Mole, the railways at Armentières, Rosières, Busigny, and Fliers, and on other targets. In addition, the railway at Karthaus and Metz-Sablon were heavily attacked by our long-distance bombing aeroplanes. One of these machines failed to return. The night of June 1st-2nd was misty, but 5 tons of bombs were dropped by us on targets in the Somme Valley without the loss of any of our machines."

### French.

*Paris, May 29th.*  
 "Salonica.—An enemy aeroplane was brought down in flames by British airmen in the Vardar valley."

*Paris, May 30th.*  
 "Our airmen have participated in the battle with endurance and daring beyond all praise. Our crews have fought against an enemy force which is very aggressive and very numerous. Flying low they attacked enemy troops with their machine-guns, they have carried our reconnaissances far into the enemy lines, and they have played an important part in maintaining communication. During May 27th, 28th, and 29th, 19 German aeroplanes were destroyed in air combats. In addition, two captive balloons were brought down in flames, and 23 enemy machines were compelled to land badly damaged. Our bombing planes during the night of May 27th-28th dropped 23,000 kilogrammes (23 tons) of explosives on the bridges and crossings of the Ailette and the Aisne and on the cantonments of Guignicourt and Juvinicourt. During the following night and

day they dropped 37,000 kilogrammes (37 tons) of projectiles on convoys and troops on the march and on the stations of Laon, Fismes, St. Gilles, &c. Severe explosions and fires were observed in the stations of Fismes, Laon, and Coucy-les-Eppes. A munitions dépôt blew up in Fismes. Between May 27th and 29th six German aeroplanes were brought down by our anti-aircraft defences."

*Paris, May 31st.*  
 "Salonica.—In spite of bad weather, the Air Service took an active part in the battle, firing with machine guns from a low height on the Bulgarian reserves. The airmen also successfully bombed the stations in the valley of the Vardar and the aerodrome of Hudovo."

*Paris, June 2nd.*  
 "During the daytime on May 31st the aerial struggle continued on the whole battle front. Our crews, with their customary dash, attacked the enemy's aircraft, 23 of which were shot down and 14 seriously damaged. The enemy's captive balloons, harassed without respite and in many cases forced to land, were considerably hindered in their work of observation. Six of them were destroyed. Our observers did not cease to mark out the lines and to keep the Command informed in regard to the enemy's movements, carrying out reconnaissances day and night as far as Vervins, Guise, Le Cateau, and Hirson. In the battle zone our squadrons machine-gunned the German troops on the march and caused them serious losses. Our bombing aeroplanes gave proof of similar devotion and marvellous endurance. In the daytime on May 31st, and during the following night, 66 tons of projectiles were dropped on the troops, transport, railway stations, and aviation grounds of the enemy, and, in particular, in the valley of the Aisne, on Fismes, Fère-en-Tardenois, Oulchyle Château, St. Gobain Forest, &c. Certain crews made as many as three expeditions on the same night. The results observed were very satisfactory. Two German aeroplanes were shot down by the anti-aircraft defences during the daytime on the 31st."

"Salonica.—Allied airmen carried out with success numerous bombardments of stations and camps in the Vardar Valley. An enemy machine was brought down to the west of Ghevgeli."

### U.S.A.

*Paris, May 29th.*  
 "It is established that on May 27th our airmen shot down two hostile machines."

*Paris, May 31st.*  
 "Early in the day our airmen shot down a hostile machine."

*Paris, June 1st.*  
 "Our airmen shot down a hostile machine."

*Belgian.*  
 "Two of our airmen brought down two German balloons in flames."

*Italian.*  
 "On May 25th our seaplanes effectively bombed the landing stages and hangars at Durazzo. Despite intense anti-aircraft fire and pursuit by enemy aeroplanes, all our machines returned to their base. On May 27th the enemy made an air raid on Otranto, which was vigorously repulsed by our anti-aircraft guns. The bombs which were dropped caused no damage. Very different was the result obtained the same day by an aerial attack by British machines on Durazzo. A torpedo-boat which was struck by a bomb capsized and sank, and a fire was observed near the Austrian aeroplane station."

*Rome, May 29th.*  
 "In the morning of May 28th our seaplanes effectively bombed the military works at Durazzo and returned safely to their base."

"Yesterday British aeroplanes bombed the enemy naval base of Cattaro, dropping there a ton and a-half of explosives. One machine was lost owing to its being damaged, but the airmen were saved."

*Rome, May 31st.*  
 "Aerial activity was intense; enemy trenches, dumps, and hutments were bombed on the Asiago and Lavarone Plateaux, and columns of troops and transport were attacked with machine-gun fire on the roads leading to Gallio. In air fights three enemy machines were brought down."

*Rome, June 1st.*  
 "Four enemy aeroplanes were brought down in air fighting.  
 "During the month of May Italian pilots and anti-aircraft batteries brought down 54 enemy aeroplanes and two captive balloons, while British airmen accounted for 82 machines and two captive balloons. The Italian and Allied losses due to hostile offensive action were only four chasing machines (two Italian and two British), which did not return. Ten raiding operations were carried out, in which about 27 tons of bombs were dropped without the loss of even one machine brought about by the enemy. The British airmen almost daily carried out bombardment actions on the enemy lines, dropping altogether more than 4 tons of bombs."

"With regard to the 'imaginary victories' which the enemy reported on May 3rd and May 21st. In the first case three machines were said to have been brought down by an Austrian pilot. On that day the Italians lost one machine only, and this was forced to land in the enemy's lines owing to engine trouble. On the other hand, three enemy machines were brought down. In the second case the Austrians reported that on the 19th four Italian aeroplanes had been brought down. No Allied machine, Italian, British, or French, was lost, but seven enemy aeroplanes were forced to land on the 19th."

*Rome, June 2nd.*  
 "Our own and Allied flights were very active; enemy aviation camps were bombarded with more than five tons of bombs. Five hostile aeroplanes were brought down in air fighting. A sixth machine hit by artillery fire fell to the left of the Piave."

*German.*  
 "During the last three days our airmen brought down 38 enemy aeroplanes. First-Lieutenant Berthold achieved his 29th aerial victory.  
 "Lieutenant Roeth, during a flight from Dixmunde to the south of Ypres, brought down in flames five enemy captive balloons."

*Berlin, June 1st.*  
 "In the last two days we shot down 36 enemy aeroplanes. Lieut. Meckhoff achieved his 28th aerial victory; Lieut. Peutter his 25th, and Lieut. Kroll his 24th."

*Austrian.*  
 "Field Pilot Deputy Officer Arigi brought down two English aeroplanes near Durazzo, and thus achieved his 25th and 26th aerial victories."

*Turkish.*  
 "Our airmen successfully bombed the enemy encampments at Wadi Hesi."

*Constantinople, May 27th.*  
 "Our aeroplanes again dropped bombs on the rebel encampments on the Wadi Hesi."

*Constantinople, May 28th.*  
 "During the night of May 25th our seaplanes successfully and repeatedly attacked the enemy aerodromes on the island of Imbros. Several fires, which blazed for a long while, were observed."

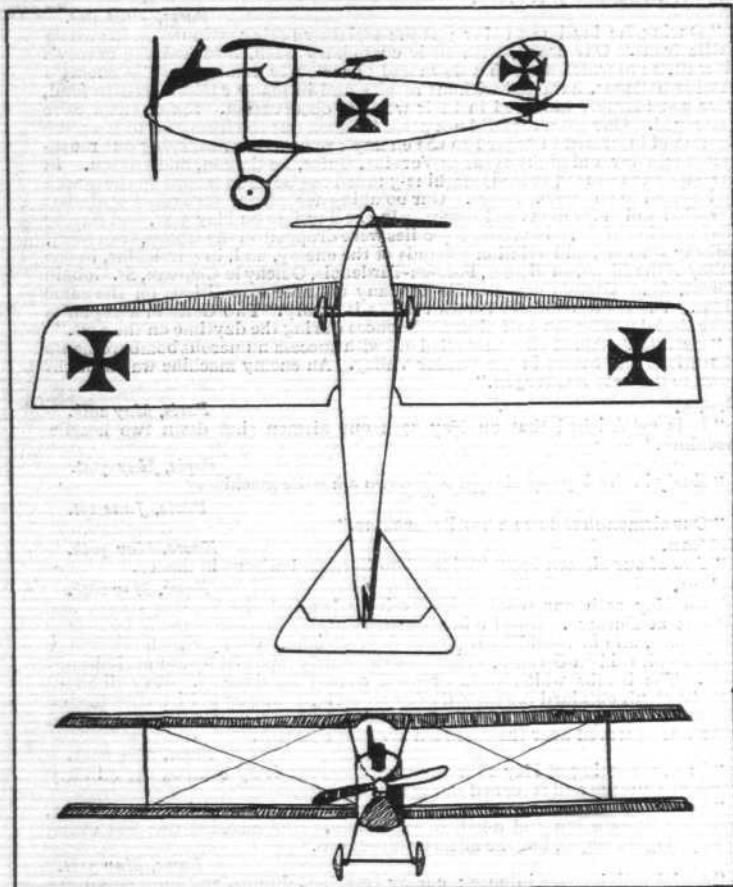
*Bulgarian.*  
 "East of the Tchernia there was lively aerial activity on the part of the enemy, and their airmen dropped bombs on one of our military hospitals, which was clearly visible, near the village of Molwitz."

*Sofia, May 26th.*  
 "West of the Vardar an enemy aeroplane was driven down in an air fight."



## ANOTHER GERMAN MYSTERY BIPLANE.

A CORRESPONDENT who has opportunities for studying German aircraft sends us the accompanying sketches of another German machine, the identity of which is not known. The machine, our correspondent says, is a two-seater, and in side view is similar in most respects to the L.V.G. V. (described elsewhere in this issue).



and Albatros C. VI. In plan the top plane is swept back, the tail is similar to that of the Fokker triplane, and the wing tips are raked and slightly rounded. In front view both wings have a dihedral angle, but the sweepback on the top plane negatives the dihedral appearance. Perhaps some of our readers may also have seen the machine and be able to furnish further particulars.

## CORRESPONDENCE.

### The Fokker Triplane.

[1961] In your edition of "FLIGHT" dated May 9th, I notice that in the description of the Fokker triplane a very decided opinion was expressed on the shabbiness of both the finish and the construction. I hope you will pardon me for comment, but this lack of finish and construction is not to be found in all the captured Fokker triplanes, by any means. Several triplanes have shown excellent finish, and in just the same way other makes of captured German machines—Albatros and Hannoveraner—have varied a great deal in the appearance of finish and construction. It therefore seems possible that only certain factories are turning out "unfinished" machines, probably through lack of material.

B. D. F.

### Sparkling Plugs.

[1962] We observe in the newspapers an account of the acquisition by Messrs. Bluemel Bros., Ltd., of a licence to manufacture sparking plugs under the Bosch patent.

We notice with particular interest that during the progress of the case the statement was made that English manufacturers of motors needed, called for, and were unable to obtain, Bosch sparking plugs. The inference was that there was some peculiar merit possessed by the German patent which set this make of plug above and apart from other makes. This is entirely inaccurate and misleading.

There is not a single manufacturer in this country at the moment fitting Bosch plugs, and although we are intimately associated with the whole trade we have yet to hear of a manufacturer who wishes to do so on the grounds that they would fulfil any purpose which English-made plugs are unable to do with equal satisfaction to the user. Bosch plugs represent Germany's best effort in plug-making; so does the Bosch magneto among magnetos. Whatever may have been the case before the war, British magnetos and the best British sparking plugs are now fully equal to and probably better, both in quality and price, than anything Germany has ever produced.

Such merits as Bosch plugs possess are the outcome of careful methods of manufacture. Plugs of similar construction (made in France) have been on the market for years.

Does patriotism prompt that Englishmen should pay royalties to keep the name and fame of a German-owned patent warm when it cannot be demonstrated that it has a single merit unpossessed by British made plugs?

THE SPHINX MANUFACTURING CO.

Bradford Street, Birmingham, May 30th.

### Anglo-Dutch Aerial Mails.

It was stated in the First Chamber of the Dutch States-General on May 31st that the Director-General of Posts and Telegraphs was preparing plans for the establishment of an aerial post to England.

### Berlin and Scandinavian Aerial Mails.

A REPORT emanating from Copenhagen says that Germany is preparing plans for organising aerial traffic between Berlin, Copenhagen, Gothenburg, and Christiania, to commence this summer.

### French Honour for American Pilot.

THE *Petit Journal* announces that the American, Sergeant Bayless, has just received the Legion of Honour. On May 28th he officially brought down his ninth enemy machine, and on the following day his tenth.

### An Air Raid on Rouen.

THE following official statement was issued in Paris on May 28th:—

"During the night of the 27th enemy aeroplanes were reported by the look-out posts at Rouen proceeding in a westerly direction. The alarm was sounded at 12.20. Violently attacked by anti-aircraft batteries, only one aeroplane succeeded in reaching the Rouen district. It dropped some bombs. One person was killed and four people were wounded. The "All clear" was sounded at 1.45."

### The Raid on Zeebrugge.

THE Secretary of the Admiralty made the following announcement on Monday:—

"Photographic reconnaissance of Zeebrugge shows clearly a submarine or other vessel lying on her bilge close to the Mole. This vessel was probably sunk by torpedo from the *North Star* on the night of April 23rd. The reconnaissance shows, also, a destroyer with her deck nearly awash at low water about 300 yards from the Mole. This is presumably the destroyer sunk by bomb from an aeroplane on May 20th."

### How the British Airmen Escaped.

DETAILS of how two British airmen evaded the clutches of the Huns is told by Reuter's correspondent with the American Army. The airmen were returning from a bombing expedition when their machine was disabled by anti-aircraft fire, and they were forced to make a landing in German territory. In doing so they crashed into a quarry, which, however, had the advantage of completely concealing their machine. Only slightly injured, they started at once towards the German lines, running most of the way, their only chance being to reach them before daybreak. The distance proved to be over twenty miles, in the course of which they had to cross a river, apparently the Seille, a tributary of the Moselle. One of them swam the river three times, once to ascertain the conditions on the further bank, and returned to bring his companion over. On reaching the enemy communication trenches they had several narrow escapes from discovery, but they succeeded in getting to the front trench and in crawling through the barbed wire into No Man's Land, in which, in this part of the line, considerable vegetation still flourishes. In creeping under a hedge for shelter they attracted the attention of a German sentry, who fired several rounds in their direction. Luckily they were not hit. They spent the day in the thick growth beneath a hedge, one watching while the other slept, and when darkness fell made their way without further adventure into the French lines.



## TRADE PARLIAMENTS AND THEIR WORK.

By **ERNEST J. P. BENN**, Chairman Industrial Reconstruction Council.

### VII.—FINANCIAL FACILITIES.

THE Minister of Reconstruction has appointed a Committee, composed chiefly of financial experts, to study the question of financial facilities for trade and industry, and to report as to whether our banking system and bankers' practice is adequate to meet the requirements of our traders when they are once again able to resume normal operations. It is well known that the financial position of a great many of our industries will need the most careful handling when war work is no longer required of them. Such elaborate precautions have been taken during the course of the war to see that these people were not allowed to profit out of the nation's need that in many cases manufacturers will find themselves without the necessary resources to undertake those extensions and developments upon which we shall rely for the employment of the population.

The case of the aircraft industry is, perhaps, the outstanding example of the sort of troubles that I have in mind. There were very few aircraft workers prior to 1914 who were able to show any profits at all, and the industry was carried on by a small group of enthusiasts and in the main at a loss. Then the war broke out and a sudden demand arose for more machines than could be made. Aircraft manufacturers everywhere extended their works, multiplied their machinery, and have by now established one of the biggest industries of the country. They have also provided facilities for an output far in excess of anything that is likely to be required when hostilities come to an end. For this purpose huge sums of money have been sunk in building and plant and the capital of the industry has increased enormously. But in the meantime, income tax and excess profits duty surveyors have been busily at work, and the bulk of the profits of this trade, which has literally saved the nation, has been taken into the Exchequer. They are further, in common with all manufacturers, barred from writing down plant and machinery to the extent which prudence demands. These people will, therefore, find themselves with a huge equipment bought at war prices, with correspondingly large capital, with orders suddenly reduced by half, and with no reserve funds. The position of other manufacturers in other trades, although not so desperate as that of the aircraft manufacturer, is much the same. In these circumstances most of these people will require financial facilities when the war is over if they are to carry on and do their share towards producing the goods that will be required to pay for the war.

This is the justification for the appointment of a Committee at the Ministry of Reconstruction to enquire into this big question, but the Committee should go beyond that. It ought to review the whole system of joint stock banking and report on the need or otherwise for an alteration of the methods and practices of bankers as we know them to-day.

But no Government Committee can form really useful conclusions on subjects like this unless they have for their guidance the trade opinions of the people most affected. This, therefore, is another reason why Trade Parliaments should be brought into being without delay, so that each trade may express its needs in this great question of credit and finance. The need for production in the future will be so great that the powers over industry held by the banking community must be controlled and restricted. We must never again be liable to a situation where orders exist, materials are ready, labourers available, and finance stands in the way. Much of the unemployment in the past has been due to the bank rate, and Labour will require to know that no avoidable restrictions of this kind are to be imposed upon it in the future. Banks have always been ready to help some trades. For instance, the stock and share trade has been carried on entirely with money provided by joint stock banks. Anybody can get without any question 80 or 90 per cent, of the total value of all Stock Exchange securities held by him. People are now beginning to ask why similar facilities cannot be offered to producing trades. It is indeed hard to see why the dealer in Mexican tramway shares can be financed by the joint stock banks while the maker of boots and shoes is denied such facilities. Enquiry into these matters is all the more urgent in face of the present development whereby our leading banks are coming together and amalgamating. We are getting very near to the stage when the banks, like the Press, will be controlled by one or two leading people. In these circumstances it is quite imperative that the leading industries of the country should take counsel together, and say in unmistakable language what sort of banking facilities would suit them best. It should never be forgotten that the banker is merely the accountant of industry; that money is often no more than a book entry, and the position of the banker, therefore, in the industrial world should be made to correspond more nearly to that of the accountant in an industrial establishment. When Trade Parliaments look into this question of financial facilities they will probably have something to say of the system which has, hitherto, found most of the money for German trade in London while denying money for British trade in Bradford or Birmingham. There is, in fact, no stronger case for the establishment of Trade Parliaments than the case which may be stated as Financial Facilities, and there is no matter which would give a better opportunity for co-operation between Labour and Capital. The average employer knows no more about the banking system than does the average labourer. Both have been in the past at the mercy of the money magnate, and it is high time that both got together and endeavoured to discover what the real position is.

## AVIATION IN PARLIAMENT.

### Transfers to the R.A.F.

MR. SNOWDEN, in the House of Commons on May 28th, asked the Under-Secretary of State to the Air Ministry if he will define the meaning of the words "attachment" and "transferred" in Clause 5 of the Order governing service in the Air Force; and will he say if transferred men are liable to service with the Air Force only for the duration of the war, while attached men are liable to service for the duration of the war or for four years, whichever period is the longer?

Major Baird: The answer to the first part of the question is that transferment means, generally, that the officer or man transferred severs his connection with the force from which he comes, and attachment means that he maintains his connection with that force while serving in the Royal Air Force. The answer to the second part of the question is that a transferred officer or man takes over the liability as regards duration of service which he had in the force from which he was transferred. Arrangements are being made under which attached officers may revert to their former service at the end of the war, irrespective of whether they have completed four years' service.

### Burial of Dead Raiders.

MR. GILBERT, on May 30th, asked the Prime Minister if he can make any general statement as to the enemy air raid on London and district on May 19th and May 20th; can he state the number of enemy machines that were brought down; the names of our airmen who brought them down; the number of enemy airmen captured, and if any of them were alive; and can he state by whose authority the bodies buried were given military funerals?

Mr. Macpherson: As regards the first and second parts of my hon. friend's question, I am afraid I can add nothing to the official statement which has already been published in the Press. It is not desirable to publish the names of individual airmen or anti-aircraft gunners who bring down, or contribute in bringing down, enemy aircraft, except in so far as their services justify inclusion in an Honours List or a mention in despatches. Details regarding enemy airmen captured, whether dead or alive, are forwarded in due course to the enemy through the Prisoners of War Information Bureau, in accordance with Article 14 of the annexe to the Hague Convention of October 18th, 1907, but it is not proposed to publish any information on the subject.

As regards the last part of the question, the bodies of dead airmen are buried with military honours in accordance with Article 19 of the annexe to the Hague Convention, and the practice prevails on both sides.

### The Loch Doon Scheme.

COLONEL FABER asked the Prime Minister to whom the land selected for the site of a flying ground at Loch Doon belonged; what was paid for it; what were the names of those who put forward the scheme; what professional advisers reported in favour of it; and what firms were engaged on the contract?

Major Baird: The names of the principal landowners concerned are the Marquess of Ailsa, Mrs. McAdam, and Mr. McMillan. The question of purchase of land arises and the amount to be paid in respect of occupation is for settlement by the Defence of the Realm Losses Commission. As regards the third and fourth parts of the question, I would refer my hon. friend to the recent Report of the Select Committee on National Expenditure. The main contractors were Messrs. R. McAlpine and Sons.

Mr. Field asked the Under-Secretary of State to the Air Ministry whether he can state the amount of money spent at Doon, and what is proposed to be done with the land; and who was responsible for the expenditure?

Major Baird: Until questions of compensation and of the expenses of restoration have been settled it will not be possible to determine the total expenditure involved by the works of Loch Doon. The land will be restored to its owners. As regards the last part of the question, I can add nothing to the recent Report of the Select Committee on National Expenditure.

### Air Raids and Vatican Representations.

COLONEL SIR F. HALL on June 3rd asked the Prime Minister if, in response to an appeal received through the Vatican, the Government have undertaken that there should be no aircraft attack on cities not in the vicinity of the battle front during the day-time on 30th May; whether a like appeal was made to the Allied Governments concerned; and, if so, with what result; if he can state whether any similar action has at any time been taken by the Vatican with reference to the bombing of hospitals and the torpedoing of hospital ships by the Germans; and, if so, with what result; and, if not, whether, as the lives of British soldiers and sailors wounded while fighting in the defence of freedom may be regarded as of not less value than those of the persons who assembled on Corpus Christi Day to pray for the success of Germany in her attacks on the liberties of the world, the Government will take the opportunity to make representations to the Vatican on the matter?

Mr. R. McNeill asked the Prime Minister whether an undertaking was given, or an announcement made, by the British Government that a German town should be immune from attack by British aircraft on May 30th; if so, at whose



request was such an undertaking given and what reasons were offered for compliance with it; were the military authorities in France consulted on the subject; was any promise of reciprocal immunity from aerial attack by Germany on cities of the Allies obtained in consideration of such an undertaking; if he is aware that a church in Paris was bombarded on that day by the Germans; and will he give an assurance that no such unmerited favour to the enemy will be allowed to interfere with the prosecution of military operations in future?

Captain Carr-Gomm asked the Prime Minister whether, when assenting to the request of the Vatican that there should be no air attack on Cologne on the feast of Corpus Christi, the attention of the Vatican was drawn to the shelling of Paris on Good Friday whereby casualties were inflicted on the congregation of a church, to the recent aerial bombardment of hospitals at Etaples, and to the air raid on London on Whit-Sunday night?

Mr. Bonar Law: The appeal referred to was received by the French and British Governments, and the reply in the terms already announced was sent after consultation and in agreement with the French Government. The staff of the Air Ministry was also consulted. The action of the Germans in shelling Paris in spite of our undertaking will not be forgotten, in the event of any similar appeal being made in the future.

Sir F. Hall: Can the right hon. gentleman say whether any undertaking was given by the German Government that the aircraft used for the protection of the back areas should not be used for bombing our hospitals and troops on Corpus Christi Day?

Mr. Bonar Law: It was precisely in connection with a question of this kind that we consulted the staff of the Air Ministry. They were of opinion that the use referred to could not be made, if for no other reason than that the notice was too short to enable other dispositions to be made.

Mr. R. McNeill: What reasons were advanced for this favour being shown to the enemy?

Mr. Bonar Law: I am afraid it would be rather difficult to give reasons for and against by question and answer. I am sure my hon. friend will see that there is a great deal to be said on both sides in regard to an appeal of this kind.

Mr. R. McNeill: Were the Government influenced by the fact that the Foreign Office is under the influence of the Vatican?

Mr. Bonar Law: The Foreign Office had really nothing to do with it. It was a decision taken by the War Cabinet after full consideration of all the relevant facts.

Sir F. Hall: Will any such consideration be shown to the Germans in future?

Mr. Bonar Law: If the hon. gentleman will look at the last part of my answer, I hope he will be satisfied.

Captain Carr-Gomm: Will the House and the public have an opportunity of seeing the full correspondence in this matter?

Mr. Bonar Law: There was no correspondence except the telegram conveying the request, and the announcement made in the Press as to our reply.

Captain Carr-Gomm: Has the attention of the Vatican been drawn to the fact that on Whit-Sunday night London was bombed by German aircraft, and to other facts?

Mr. Bonar Law: No; they were not. It is quite obvious that the Government would have been fully justified in view of the raids at Whitsuntide in refusing altogether to consider such an application. In addition to that, it seems to me an example of German mentality that such a request should have been put forward after what happened at Whitsuntide. Though I think it was an impudent request it does not follow that it would be unwise to accede to it.

Colonel Thorne: Do you not think that the Germans think we are a lot of fools?

Mr. Herbert Samuel: Can the right hon. gentleman say whether the Germans were asked to take reciprocal action to spare on that day other places behind the British lines, and if not, why not?

Mr. Bonar Law: They were not. I should have thought that such a request was quite unnecessary. If we had made such a request it might have implied that we were making a bargain. We were not; we were doing this because we thought it was right to do it.

Mr. A. F. Whyte: Has the Government any information that the Vatican made a request to the German Government in regard to the bombardment of Paris on Good Friday?

Mr. Bonar Law: We have no knowledge of any such representation having been made. Perhaps it is right to say that we have called the attention of the Vatican to what took place on Corpus Christi Day in Paris.

## SIDE-WINDS.

A REPRESENTATIVE meeting was held on Wednesday, May 15th, at the Chamber of Commerce, Birmingham, in connection with the project for forming an Engineers' Club in the Midlands. In opening the proceedings, the Chairman, Dr. C. C. Garrard, M.I.E.E., remarked that in the future a great responsibility would rest upon engineers and upon all occupying leading positions in the engineering industry in connection with the work of reconstruction rendered necessary by the war. It was felt, however, that as a body engineers did not have the power corresponding to their abilities. This was no doubt due to their being so scattered and split up into a large number of organisations which had very little contact with each other. It was felt that the first thing to do to get over this state of affairs was for engineers and those associated with them technically to get together and to know each other. The result would inevitably be co-operative action which would undoubtedly result not only in advantages to engineers themselves but in great benefit to the country. The idea underlying the organisation of the club was that it should offer all the advantages of a first-class social club combined with facilities for meetings, lectures, &c. It was thus hoped that it would become the meeting place of the various technical societies in the district. Such a common meeting place for these societies had long been desired in Birmingham.

It might be added that the present scheme was part of a larger idea whereby such engineers' clubs would be founded in all the large engineering centres in the country. These it was hoped would eventually become federated together so that members would not only have the practical advantages of the use of the club house in their travels, but the clubs would form centres of engineering activities in each locality. A number of gentlemen connected with the industry have

been elected to form a Finance and General Arrangements Committee, and also a Rules and Propaganda Committee, Dr. C. C. Garrard, of the General Electric Co., and Mr. J. Fearn, of the Birmingham Small Arms Co., Ltd., were elected provisional Chairman and Honorary Secretary respectively. The Honorary Secretary would be glad to get into touch with any gentleman interested in this project, and would invite any such to communicate with him.

In order that they may actively assist in increasing aircraft output Messrs. Barimar, Ltd., have now arranged that their special sheet metal department shall be made available for the production of cowls, undershields, tanks, fairings and panel work of every kind. Aircraft manufacturers who are in need of assistance along these lines would do well to communicate with Barimar, Ltd., 10, Poland Street, London, W. 1.

THE spirit of goodwill and mutual understanding existing among the leaders of the British Magneto industry was very manifest at a gathering which followed the annual general meeting of the British Ignition Apparatus Association last week. Mr. Ernest Garton, who has acted as hon. secretary of the association from its inception, was entertained at dinner by the members, and presented on their behalf by the Chairman, Mr. Peter F. Bennett, with a token of appreciation and thanks in the form of a very handsome grandfather's clock.

THE Café Monico, the scene of many historic and interesting functions, was on Saturday last the gathering place of the employees and friends of Wm. Cole and Son, Ltd., of Hammer-smith. It was early evident that all present had made up their minds for a right good and enjoyable evening, and were not disappointed. Everything for the happiness of the employees had been well considered by Mr. Albert Cole. Mr. Bird, a co-director, made a very enjoyable and forceful speech, emphasising the important part the firm was taking in winning the war, and urging all the staff to continue, as they had done in the past, to put their utmost into their work. A very pleasant ordeal then followed, Mr. Albert Cole presenting some five or six of the oldest employees each with a watch, the charge hands each with a knife (from whom he extracted the usual penny, not to sever friendship), and lastly, but by no means least, the secretary and assistant with a cheque each. This generosity is nothing out of the usual with Mr. Albert Cole, who firmly believes in the principle that his loyal employees are always worth the first consideration. An excellent musical evening followed, and eventually enthusiasm ran so high, that Mr. Cole, who had occupied the chair all the evening, was lifted bodily and carried shoulder high from the hall to the strain of "He's a jolly good fellow." At this moment curfew rang an unwelcome knell on a real good night.

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IN order that "FLIGHT" may continue to be published at the usual time, it is now necessary to close for Press earlier. All Advertisement Copy and Blocks must be delivered at the Offices of "FLIGHT," 36, Great Queen Street, Kingsway, W.C. 2, not later than 12 o'clock on Saturday in each week for the following week's issue.

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## FLIGHT

and The Aircraft Engineer.

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